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THE DEVELOPMENT AND TESTING OF APPROACHES TO THE TEACHING OF ENGLISH IN THE JUNIOR HIGH SCHOOL. FINAL REPORT.

FLORIDA ST. UNIV., TALLAHASSE, CURRICULUM STUDY CTR

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THE PRIMARY OBJECTIVE OF THE FLORIDA STATE UNIVERSITY CURRICULUM STUDY CENTER IN ENGLISH--THE IDENTIFICATION OF GUIDELINES FOR THE TEACHING OF ENGLISH IN JUNIOR HIGH SCHOOLS--WAS TO BE ACCOMPLISHED BY DEVELOPING THREE CURRICULUMS, EACH BASED UPON A DIFFERENT APPROACH. THE THREE APPROACHES WERE--(1) TRI-COMPONENT, (2) THEMATIC LITERATURE-CENTERED, AND (3) COGNITIVE PROCESSES. THESE CURRICULUMS WERE USED FOR 3 YEARS WITH 1,000 JUNIOR HIGH SCHOOL STUDENTS WHO WERE THEN TESTED AND COMPARED TO CONTROL GROUPS. RESULTS INDICATED THAT DIFFERENCES IN STUDENT ACHIEVEMENT AND RESPONSE AMONG THE THREE EXPERIMENTAL CURRICULUMS WERE NOT SIGNIFICANT, ALTHOUGH THE TRI-COMPONENT CURRICULUM WAS MORE EFFECTIVE IN PRODUCING CERTAIN KINDS OF LANGUAGE SKILLS AND WAS SUPERIOR TO THE MISCELLANEOUS CONTROL CURRICULUMS. CONCLUSIONS OF THE STUDY WERE THAT AN ORGANIZED APPROACH TO TEACHING ENGLISH IS IMPORTANT, THAT A STRUCTURED CURRICULUM DOES NOT GUARANTEE EFFECTIVE STUDENT PERFORMANCE, AND THAT TEACHER BEHAVIOR HAS A CRITICAL EFFECT ON STUDENT PERFORMANCE. IT WAS RECOMMENDED THAT FUTURE RESEARCH FOCUS ON THE TEACHER AS WELL AS ON SUBJECT MATTER. (THE APPENDICES, CONTAINING PARTS OF THE THREE CURRICULUMS, ARE NOT INCLUDED IN THIS REPORT. SELECTED AND REVIEWED MATERIALS DEVELOPED BY THE CENTER ARE SCHEDULED FOR PUBLICATION BY THE SILVER BURDETT COMPANY.) (JS)

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The Florida State University
Tallahassee, Florida

June 30, 1968

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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FINAL REPORT

PROJECT NO. H-026

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THE DEVELOPMENT AND TESTING OF APPROACHES TO TEACHING OF ENGLISH IN THE JUNIOR HIGH SCHOOL

The Florida State University

Tallahassee, Florida

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SUMMARY

The Florida State University Curriculum Study Center in English was funded by the United States Office of Education on July 1, 1963. The primary objective of the Center was to identify some guidelines for the teaching of English to early adolescents. This objective was to be accomplished by developing, from beginnings already made, three curricular approaches to junior high school English and to give a practical tryout to these approaches in six junior high schools in Florida. At the end of a three-year period, when all the students involved in the experiment completed the ninth grade, a battery of test instruments was administered, data from which were analyzed statistically or in other appropriate ways.

From its inception, the Center was intent upon accumulating a sizable amount of empirical evidence to be used in connection with the present research and the future development of curriculum. This was accomplished and is perhaps the most significant contribution of the Florida State Center.

Production of materials was a secondary objective of the project. Operating under the assumption that some procedures and materials already in use were valuable, the Center staff built into its curricula, when appropriate, existing materials and methods--including textbooks, portions of curriculum guides, Scholastic literature units, various audio-visual materials, special pamphlets and teacher helps, and some materials used by permission from other curriculum study centers. The quantity of original curriculum content developed by the Center staff, however, represents the bulk of the project materials.

The findings of the research showed that differences between student achievement and response in the three experimental curricula generally were not significant. According to one statistical measure, one of the three experimental approaches was significantly more effective in producing achievement than the control group curriculum (i.e., whatever was conventionally taught in the six Florida junior high schools). It was also found that none of the three experimental curricula was significantly more popular than another, in the judgment of the students in the programs. The teacher variable, however, according to practically all the measures, was consistently very significant. Among the conclusions of the study were (1) that some sort of organized approach to teaching English in the junior high is of importance, (2) that a carefully structured curriculum does not of itself guarantee effective student performance, and (3) that teacher behavior (the attitudes and awarenesses which a teacher brings to the student and subject matter) has a critical effect on student performance.

Chapter 1

THE PROBLEM AND THE CURRICULAR APPROACHES

I. The Problem

The Basic Issues Conferences of 1957 generated new interest in the possibilities of developing sequential and cummulative curricula throughout the English teaching profession. Scores of articles and reports have since cited the disjointed and often chaotic nature of the English curriculum. There has always existed a need for the kind of research which might reveal the most effective ways of organizing the English program.

The junior high school is an especially crucial level in the development of the English curriculum. The separate junior high or middle school is now an established unit in most areas of the nation, although it remains something of an educational no-man's land with neither the traditions of the elementary school nor of the high school fastened upon it. It is in the seventh grade that most pupils enroll for the first time in a subject known as "English," although they have received instruction in English in the elementary grades. It is usually at this level for the first time that the student receives instruction from a teacher specifically trained in English.

Recognizing the need for systematic research into the possibilities of organizing the content of English, and further recognizing the junior high school as an especially neglected segment of the school system, the

Florida State University Curriculum Study Center set out to identify some guidelines for the teaching of English to early adolescents. Since its funding by the United States Office of Education on July 1, 1963, the Florida State Center has developed and tested three approaches to the teaching of English in the junior high school.

II. The Approaches

A great deal of curriculum work has been done by local, state, national, and private groups, and many bulletins and curriculum guides were available at the time of the Center's inception. Analysis of a select number of these materials revealed an adherence to three general approaches in the English curriculum: (1) Allocation of facets of subject matter to the various grades on the basis of the logic of the subject (the facets being the familiar triad of language, literature, and composition); (2) A series of topics or themes supposedly of significance to pupils at different grade levels (see Arnc Jewett, English Language Arts in American High Schools, Bulletin 1958, No. 13. Office of Education, U. S. Department of Health, Education and Welfare. Also The English Language Arts: Grades Seven Through Twelve. Tulsa Public Schools, 1961.); and (3) A process or sequential steps approach to the facets of English (see "The State of the Profession," 1962. Mimeographed report to the Executive Committee of the National Council of Teachers of English. Also A Guide to Learning, University of Toronto Press, 1962.). After a careful analysis of rationales for each of these general approaches, the Center staff developed its own rationales for three experimental curricula The curricula were developed for grades seven, eight, and nine and were based upon:

(1) a series of instructional units centered on definite facets of subject matter in literature, composition, and the English language.

(2) a series of themes reflecting the four basic humanistic relationships: man and deity; man and other men; man and nature; man and his inner self.

(3) a sequential step and process approach to the facets of language, literature, and composition.

A. Explanations and Descriptions of the Three Approaches

Curriculum I - The Tri-Component Approach

At the time the Florida State project was launched, the tri-component curriculum was generally regarded as a consensus on the structure of English in the secondary schools. The publication in 1965 of the well-known report of the Commission on English, Freedom and Discipline in English, confirmed this hypothesis. Specifically, a recommendation in the curriculum section of the report noted that "the scope of the English program can be defined as the study of language, literature, and composition, written and oral, and that matters not clearly related to such study be excluded from it."(1)

The general scope of the curriculum can be defined, in large part, through reference to recommendations made for the junior high school in "An Articulated English Program: A Hypothesis to Test," written by members of the Conference on Basic Issues in the Teaching of English and published in PMLA, September Supplement, 1959. This document discusses a "literary component" and a "writing component" and makes these suggestions for the junior high school:

Literature

Consciousness of literature as an effective way of conveying experience, in various forms of poetry, story, and play should be brought to his (the pupil's) attention in his English class. Here the student must understand not just the excitement of story but what happens to people and what people are like in myth and folklore. He must also be introduced to some of the distinguishing features of each kind of writing and the handles by which he can get hold of the forms and talk about them. His reading might well consist of poems, stories, and plays in the great tradition, from both past and contemporary writers (always within his capacity for understanding, but offering him the pleasures and challenges of stretching his mind). Many of the readings should be from works which call upon the literary knowledge he has found in folk tale, mythology, national legend, and the Bible.

Writing

The junior high school student should have the chance to experience great growth and development in writing, building on his elementary school foundation. The organizing sense must be sharpened and an interest in precision increased, leading to the beginnings of the analysis of sentence structure in English, or of description of the component clusters. Terminology is bound to enter at this point as a useful handle by which to get hold intellectually of the maneuverability of words and phrases, the effectiveness of subordination and inversion compared with that of coordination, and normal declarative word order. The sense of function and structure appearing in the newer grammars of the linguistic scientists offer perhaps the most stimulating and challenging way of opening up to the child the possibilities of effective writing. But at this point, one sees the absolute impossibility of divorcing the consideration of writing from reading, and from advancing in the former both by alertness to what has been written effectively and by a certain amount of imitation of it. But again no substitute exists in junior high school for writing and for the intelligent careful criticism by the teacher. Marked papers may provide some sort of motivation, may penalize effectively the repetition of bald errors, but grading is no fit substitute for the critical discussion of writing. At this level what used to be called "word analysis" becomes interesting to the student. In addition some introduction should be made to the denotative and connotative distinctions of words. One would hope that by the time of graduation from junior high school a student would have become familiar, by continual exercise, with writing precise sentences, grouping sequential ideas into paragraph form, and that he would be able to write clear narrative and brief exposition.

The outline of units that follows should indicate the attempt to develop a specific sequence on the basis of these general statements. Though a separate sequence of units was built for each of the three components, there was, of course, some natural fusion. Rhetoric and linguistics were not completely divorced, and written and oral composition figured prominently in some of the units in literature. In developing the various units, the Center staff consulted specialists in literature, linguistics, and rhetoric. In general, the units in Curriculum I divided the major facets into discrete segments of study. Students were expected to attain a degree of mastery of the concepts underlying each segment. The specific breakdown of the facets was as follows:

Seventh Grade

Literature:

1. Myth, legend, and folklore
2. Introduction to modern imaginative forms of literature

Language:

1. Semantics: I
2. Lexicography
3. Morphology and syntax: I

Composition:

1. Micro-rhetoric: I

Eighth Grade

Literature:

1. The novel--symbolism in fiction
2. The short story--plot development
3. Narrative poetry
4. One-act play

Language:

1. Morphology and syntax: II
2. Modern forms of oral communication

Composition:

1. Micro-rhetoric: II
2. Modern forms of oral communication

Ninth Grade

Literature:

1. Satire
2. Drama
    a. Comedy
    b. The classical tragedy--Antigone
3. Lyric poetry

Language:

1. Grammar of transformed sentences
2. Semantics: II

Composition:

1. Rhetoric and composition: invention, ordering, strategy (voice, tone, and attitude)
2. Oral persuasion

Curriculum II--The Thematic Literature-Centered Approach

In this curriculum, a theme, concept, or abstract idea was placed in a position of central importance. The theme was first identified and described for the students. It was then discussed. From the outset, all activities, materials and devices for evaluation of student contributions were developed in the light of the theme and the propositions it made concerning human experience.

Although the thematic units developed in this curriculum were literature-centered, there was considerable time spent on the study of other components of the English curriculum. A description of the sequence of activities used in the thematic unit should make this evident. Once the theme was introduced and briefly discussed, literary selections based on some aspect of it were read. The teacher then asked the students to react to these selections, particularly as they related to the theme. During their writing of in-class reactions, the students received direct instruction in composition.

Once the readings and reactions were undertaken, some analysis of the principles and problems of language, both spoken and written, was done. Sometimes the materials for analysis came from the literary selections read. More frequently and more important, the linguistic issues dealt with emanated from students' own written and spoken reactions. The teacher recorded characteristic linguistic responses as they occurred in students' verbal statements and used them as topics for instruction, focusing on more fundamental issues in earlier units and moving to more complex ones later on.

This thematic organization had one added feature: Instead of developing eighteen separate themes for the three-year program, the staff evolved six major or encompassing themes. For each of these, three sub-themes were indicated, one for each succeeding grade level with (hopefully) each sub-theme more complex and subtle than the one previously selected. The accompanying activities and materials reflected this growth or complexity and subtlety.

In outline form, the six "thematic categories" developed as follows:

Category	Seventh Grade	Eighth Grade	Ninth Grade
The Unknown:	Qualities of Folk Heroes	Deeds and Qualities of Men and Myth	Concern for the Unexplained
Frontiers and Horizons:	Far Away Places	The Village	Frontiers in Space

Category	Seventh Grade	Eighth Grade	Ninth Grade
Decisions:	Courage	Responsibility	Justice
Teamwork:	Team Leaders	The Family	The Team and the Individual
Man in Action:	Man and Nature	Man Among Enemies	Man Alone
Relationships:	Adolescents We Learn About	Close Adolescent Relationships	Mirrors (relations with self)

More specifically, the descriptions of individual units are as follows:

Seventh Grade

Qualities of Folk Heroes We Admire

Among several cultures of interest to Western man, there is to be found a substantial body of legends which have been passed on and treasured by succeeding generations. For the purposes of this report, it should be realized that these legends come in the form of stories which stress action, suspense, adventure, and notable achievement. In using this unit as an introduction to the greater encompassing theme, Man in Action, the teacher stressed two factors: First, that the legends are stories and are products of an imaginative writer; they serve as one kind of literary introduction. Second, as landmarks of cultural milieu, they tell us something about traditions which were developed before (and sometimes long before) our era but which are of continuing interest.

Far Away Places

The fertile imagination of youth frequently asserts itself in dreams of magical kingdoms where romantic individuals contend in valorous actions. By reading poems, novels, short stories, plays, and personal essays the students saw that man's artistic expression of far away places provided two of his needs: the need to escape from the frequent banalities of his own life and the need to dream of something better--to create social, economic, and political utopias. The student was to have demonstrated his recognition of these needs and the different forms in which they were expressed by reacting, by examinations, by writing critical essays, and by discussing frequently.

Courage

A Scholastic Literature Unit

Team Leaders

Identification with heroes and with leaders of all literary eras is a necessary part of the maturation of the child. By reading biographies, short stories, and poems, the student came into contact with the various characteristic features of those individuals who have the necessary traits to become leaders of a given group of people. The students discussed and analyzed these features and wrote several informal essays demonstrating their awareness of the qualities of leadership.

Man and Nature

Within this unit, the student was made more aware of the various conflicts man has had with the numerous forces in his natural environment; quite frequently these destroy man; more frequently, man is shaped by these forces into what he is. The student recognized that man was partially formed by his surroundings. The student was made aware of this by reading short stories, poetry, and novels, by writing personal essays reacting to his reading, and by essay-type examinations which tested his comprehension and appreciation of the literary materials.

Adolescents We Learn About

The twelve-year-old child learns many of his behavioral patterns by observing other children of his own age. Literature provided the student with the opportunity for learning the motives and behavior of other adolescents to a degree not possible in daily life; he was provided more insight into more divergent types of adolescents than he observed around him. By making these observations, the student found out how much alike all peoples were despite their outward differences.

Eighth Grade

Qualities of Deeds of Men of Myth

At this level, and using discussions of legendry as resource material, consideration was given to major and popular mythological systems of several cultures. Again the initial emphasis was on the individual myths and the systems in which they are involved. Moving from this consideration, however, careful and guided discussion of the characters, situations, and settings found within the individual myths was conducted. Still further, some attention was called to the possible qualities, values, and ideals which may be suggested by mythological anecdotes. Also frequent reference was made to mythological characters, situations, and themes as they have been used by writers from several periods of literary history. Whenever appropriate, students were led to consider the varied ways in which certain specific myths were used by different writers to suit their thematic purposes. These latter activities were conducted only when student-written reactions clearly led to them.

The Village

The educational process for the child living in colonial America began with the family and most frequently ended with the village. The modern student recognizes that the societal environment known as the village is now an intermediary in the educational process, and that the influence of the village on the developing mind can be either good or bad, stifling or expansionary. The student read short stories, poetry, and novels depicting the role of the village in the lives of its inhabitants and wrote essays contrasting or comparing the relationships established between villages and individuals.

Responsibility

At this level of experience, the student is becoming more aware of his rights as an individual; equally important, but possibly not as evident to the student, are his responsibilities as part of society--as a member of the family, the small social group, and the larger society of which he is also a member. Through his reading of imaginative literature--short stories, novels, plays, and poetry--he identified with other individuals and the manner in which they received and accepted responsibilities.

Man Among Enemies

The child quickly learns that one of the inevitable facets of man's life is strife; "man measures his strength by his destructiveness," Shaw has written. What the growing child learns, however, is that man's antagonists are not always overt in their actions. The student learned through reading poetry, novels, short stories, and plays that some of man's bitterest and most dangerous enemies are subtle and insidious in their techniques. The bully down the street becomes the amorphous entity threatening the individual will by mental coercion. The student wrote critical and personal essays to demonstrate his growing ability in recognizing the changing nature of man's enemies.

Close Adolescent Associations

Loyalties to peers become a real issue among large numbers of young people. The making or breaking of friendships, the realizations of rivalries, the sudden growth of animosities are all of the utmost consequence during adolescent years. As these young people observe the nature of close personal relationships among characters found in outstanding adolescent fiction, such matters as comparisons of duration, intensity, and general quality of the relationships among adolescents pictured in the selections were pointed out. Also, oral and written reactions emphasizing personal relations regarding these associations, judiciously assigned by teachers, aided the student with the whole problem of self-identification.

Ninth Grade

Concern for the Unexplained

The student living in a world in which increasing importance is placed on material values is frequently unaware of the non-materialistic values to be found in life. With no special emphasis placed on religious phenomena, the student read poems, short stories, essays, and plays, which related to him a world of realities not explainable within the extensional world. By reacting to his reading, in discussion and in writing short papers, the student revealed his growing awareness of the force of literary imagination.

Frontiers in Space

Good contemporary literature is often overlooked in the English curriculum of the junior high school. With so much attention paid by the world to conquering space, the student needs to be aware of the impact scientific advancements have had on the literary imagination. By reading literature, particularly short stories and novels of science fiction, the student was encouraged to notice how the imaginative mind is coping with the rapidly expanding world of science. He reacted to his reading by writing analytical essays which demonstrated his ability to enter imaginatively into the extraordinary worlds of literature and science.

Justice

From the time that the student's mind becomes conscious through childhood and adolescence, he begins to perceive the validity of the standards of his parents' dicta. These standards the child learns to judge as either just or unjust, from his point of view. By reading essays, short drama, novels, poetry, and short stories, the student became aware that most often society (and subgroups of a society) determines forms of justice; he also learned to differentiate definitions of "absolute" from "relative" justice. By writing critical essays and by taking short examinations, the student revealed his knowledge of the various concepts of justice, and he also indicated his ability to synthesize the information he received into a coherent statement involving his own concepts of justice.

The Team and the Individual

As the student moves through the earlier phases of adolescence, he experiences distinct and often conflicting desires for independence and belonging. It would seem important, therefore, during this intensely introspective phase of his life, that he be asked to consider, react to, and compare literary selections which place both adolescents and adults in a variety of positions relative to their community. The student was allowed to assess the strengths and shortcomings of individuality and conformity as he viewed them in fictional, non-fictional, dramatic, and poetic selections. He was asked to consider carefully the decision-making processes and the implications of decisions once they were made. He also considered the concepts of success and failure as related to individuals who chose to work with the group or "play a lone hand."

Man Alone

When society's influence on the economic and social well being of the individual terminates, the individual is left with himself. Literature, poetry, short stories, novels, and plays provided the imaginative impulse for the individual to come to terms with himself in this unit; the literary experience gave him several points of view from which to identify himself--as a member of mankind. By discussion and by writing essays reflecting on his reading, the student illustrated his growing awareness as an individual and also as a part of all mankind.

Mirrors

A Scholastic Literature Unit

Curriculum III--The Cognitive Processes Approach

In grades 7 and 8, the rationale for Curriculum III was largely developed from the writings of Jerome Bruner. A system of "spirals" and "phases" was used to organize the curriculum at those levels into four categories of emphasis: Structure, Meaning, Organization, Integration and Reasoning. The subject matter was again the familiar triad of language, literature, and composition. The focus in grade 9 shifted slightly. Here the rationale was largely developed from the work of Jean Piaget. Essentially literature-centered, the ninth grade curriculum proceeds from a structure of themes, modes, and genres (see Dwight Burton, Literature Study in the High Schools, Holt, Rinehart, and Winston, Inc., 1967.). Students were made consciously aware of a matrix of relational processes (see Appendix: An Approach to Literature Through

Cognitive Processes) and how they affected perception, interpretation, and understanding.

Phase I

The first Phase emphasized structure and small units of meaning in language, literature, and composition. Language and composition activities were complementary. Concern with structure of literature involved discussion of plot, setting, and characterization. Northrop Frye's modes of fiction were anticipated through concern with such common fictional devices as mistaken identity or excess as aspects of comedy. Activities progressed from work in sentence and word structure to structure in literature. For example, pupils were asked to complete stories which followed the pattern of comedy or mystery. Meaning, of course, remained a consideration, but a secondary one in this particular Phase.

Phase II

The second Phase in the seventh grade emphasized small units of meaning but continued the relationship with structure. The importance of context in the English language was a major concern here, and work was begun with symbols. Basic skills in language, literature, and composition were dealt with in more complex material with emphasis on ideas or meaning. The approach was primarily inductive. Whereas in Phase I the sequence of skills was consistently from particular to general, in Phase II, the sequence developed from both specific to general and from general to specific.

Phase III

The emphasis in the third Phase was on the general act of determining "the logic of classes and relationships" or organization. The process required, of course, the ability to organize material in writing as well as the ability to perceive organization or development in types of literature. There were three divisions of this Phase. The first featured a kind of practice session where pupils worked on several of the writing skills. The second involved study of organization in two narrative poems. The third centered on the reading of the novel, SHANE, by Jack Schaefer.

Phase IV

Phase IV was a kind of problem-solving unit. Here there was an attempt at integration of skills, subject matter, and patterns of perception, and an introduction to hypothetical reasoning. The unit stressed individual investigation by the pupils of problems of early adolescence. Each pupil was required to prepare an individual report and to contribute to a group report. The resource material included literature, various kinds of non-fiction, and the mass media.

Eighth Grade

In the eighth grade, the materials departed more sharply from traditional content. Instead of such lengthy units of study, the Phases were broken down into "spirals," this label merely one of convenience. Each of the "spirals" within the Phases emphasized an aspect of the discipline--language, literature, or composition.

Phase I

> In the seventh-grade curriculum students were introduced to methods for determining nouns. In the eighth grade, in addition to reviewing these three methods, the students considered some further linguistic generalizations about nouns--in particular, the positions of the word-class. Verbs, adjectives, and adverbs were similarly approached. While in the seventh grade traditional terminology was used as a kind of compromise between a traditional and a linguistic approach; in the eighth grade the transition to linguistics was completed both in approach and in terminology. This transition is largely completed in this first "spiral" of Phase I.
>
> In the second "spiral," certain operations were applied to reading of prose, first to the small unit of the paragraph, later to the larger, more complex unit of the essay. Two short stories provided further exercises in inference development. In almost all activities, it was the form or the physical shape of the pattern which was emphasized. However, the structure was always considered in its relation to meaning, whether of a simple paragraph or a somewhat involved short story. When the drama was introduced, the pattern of comparison-contrast was applied by relating the structure of a play to other literary forms. A simple one-act play was studied, with the focus on the particular structural characteristics of the drama--stage directions, etc.
>
> In the third "spiral" methods of paragraph development were stressed. Although the seventh-grade program introduced students to such methods of development, this third "spiral" concentrated on them. The work began with a review of narrative and descriptive paragraphs. Chronological development was emphasized in the study of narrative, while spatial order and development from general to particular received the attention when students wrote descriptive paragraphs. In the second part of this third "spiral" there was focus upon two methods of building the expository paragraph--through details and through examples and illustrations.

Phase II

In the work in Phase II the importance of meaning through syntax was stressed in language study. The "spiral" dealing with literature was the longest in the year. Here the focus was on interpretation and recognition of theme. The unity of this work was in the mental manipulation of symbols representing things and relations. The skills which are essential to this process of "knowing" clustered around some particular situations of language use and the corollary that structure is integral to meaning. Much of the work dealt with emotional aspects of language, figurative language, sensory words, connotations. The general idea of language as metaphor was nourished here.

The patterns of time sequence, comparison-contrast, cause-and-effect were viewed in their structural relationship to meaning in such literary types as narrative poetry, the short story, historical fiction, speeches, drama (an excerpt), and lyric poetry. Thus the "spiral" opened with concern for the literal meaning in narrative poetry and moved in a helical manner to concern with the more abstract interpretation of lyric poetry.

Phase III

Phase III was a review and extension of principles. The major focus was on the principle that structure and meaning are inextricably related. Furthermore, the skills and concepts were directly discussed with the pupils rather than inductively developed as they were originally.

The first "spiral" within Phase III was intended as a reinforcement of those language concepts dealt with intensively in language study during Phases I and II. The linguistic and semantic nature of language were both illustrated. The relationship of structure to meaning was viewed from both the linguistic and the semantic points of view. For example, in considering words, there are the linguistic aspects of inflection and suffixes, but suffixes also have lexical meaning. The linguistic approach was based on material from THE STRUCTURE OF ENGLISH by Charles Carpenter Fries (1952), THE STRUCTURE OF AMERICAN ENGLISH by W. Nelson Francis (1958), and Paul Roberts' PATTERNS OF ENGLISH (1956), ENGLISH SENTENCES (1962), and ENGLISH SYNTAX (1964).

The integration of structure and meaning in literature was approached intensively through the study of the novel, SWIFTWATER, by Paul Annixter. This novel provided a transition from SHANE studied in the seventh grade. Both novels have an adolescent protagonist who comes to some kind of awareness or terms with reality. Both novels feature physical adventure and are set in the wilderness. The two novels are similar stylistically, for example, in the use of dialect and elementary metaphor.

Phase IV

Phase IV in the eighth grade was not constructed in "spirals" but, as in the seventh grade, this Phase was an integration of all that had been before. This unit featured study of various literary types as well as of mass media which demonstrated man's experiences. The objective of the unit was to give pupils insight into the ways in which men interpret their experiences. D. H. Lawrence's short story, "The Rocking-Horse Winner," portrayed several interpretations of an experience. Analysis of language use became the central focus in the examination of the "why." Composition work was a corollary of the unit's activities.

In summary, the eighth-grade curriculum was an extension of, as well as a departure from, the more traditionally familiar material of the seventh grade. Structural grammar replaced traditional grammar. The materials and activities incorporated the "devices" Jerome Bruner discusses in THE PROCESS OF EDUCATION. A number of audio-visual devices were used to provide vicarious experience.

Ninth Grade

The writings of Jean Piaget, as noted earlier, influenced preparation of the ninth grade Curriculum III materials. Although the unit system adopted at this level resembles the organizational structure of Curriculum I, a genuine attempt was made to consciously direct students to an awareness of the kinds of relational patterns which enabled them to hypothesize meaning. The following units comprised the ninth grade sequence:

Unit I: Perceiving Relationships A
Unit II: The Short Story
Unit III: Poetry
Unit IV: Perceiving Relationships B
Unit V: Language: Sentence Relationships
Unit VI: Man and the World of Nature
Unit VII: Man and Man
Unit VIII: Man and Deity

Unit IX: Man and Self
Unit X: Perceiving Relationships C
Unit XI: The Romantic Mode
Unit XII: The Comic Mode
Unit XIII: The Tragic Mode
Unit XIV: The Ironic Mode

SUMMARY OF CURRICULAR APPROACHES

Each curricular approach was developed from a distinct rationale. However, there were some common characteristics shared by all. The units in each curriculum were "teacher units," rather than "student units." That is, they were essentially teachers' manuals. They provided a day-by-day set of lesson plans which extended over a period of approximately 30 weeks or 150 class periods. It will be pointed out later that teachers were expected to follow the plans diligently, in order than uniform treatment of content from school to school might be insured. This was a difficult but necessary requirement, since the value of the experiment depended upon the existence of minimal differences in approach and content from school to school.

In the three curricula there was considerable use of aduio-visual materials, including overhead transparancies, 35 mm. slides, records, tapes, and movies. Likewise, all made use of, wherever applicable, state-adopted textbooks which were available to the schools participating in the experiment. All the units provided student materials in the form of mimeographed handouts and paperbound books. The format of the units in each curriculum was virtually identical; each unit contained two sections--the day-by-day plan and the student materials supplement. (see Appendix for sample units from each curricula.)

In developing the three curricula, the Center staff worked under the assumption that some procedures and materials already in use were valuable. When appropriate the staff incorporated these materials into the curricula. Scholastic Literature Units (Scholastic Book Services, a division of Scholastic Magazines, Inc., Englewood Cliffs, N.J.), special pamphlets and teacher helps, and materials from other curriculum study centers were used in a limited fashion. The original curriculum content developed by the Center staff, however, represents the bulk of the project materials.

The procedure whereby the units in all the curricula were constructed needs some explanation. The project was funded in July of 1963, but the seventh-grade materials were not completed until the summer of 1964. While the seventh-grade materials were being used in the schools, the staff developed the eighth-grade materials which were made available for testing in the fall of 1965. The same procedure was followed in the development of the ninth-grade materials. Thus, by the summer of 1967, three complete approaches to junior high school English had been developed by the Center staff and had been given a tryout in several Florida schools.

Each participating teacher provided an elaborate quantity of feedback for the Center. Among other things, they

a) made extensive notations in the margins of the teacher guides, recording strengths and weaknesses of specific activities and materials.

b) suggested alternate possibilities in specific lessons.

c) periodically collected samples of student writings.

d) compiled at the end of each year a list of literary selections which they regarded as especially successful.

The purpose of these extra-teaching activities was twofold. First, the above information enabled the Center staff to improve content and approaches in the development of subsequent guides. Second, it provided a body of data supplementary to the final evaluation program from which inferences could be drawn about the effectiveness of the various curricula. All the guides, complete with annotations and appended lists, were returned to the Center at the end of each school year.

The Center staff involved in the production of the curricula over the three-year span (July, 1963 to April, 1966) included a variety of personnel, virtually all of whom were former teachers of English in the secondary school. At the time of the actual preparation of the materials, these staff members were either professors or graduate students (M.A. and Ph.D.) in the Department of English Education at Florida State University.

Chapter 2

THE METHODS OF RESEARCH

I. The Research Design

The object of the research, as pointed out in Chapter 1, was to identify some guidelines for the teaching of English to early adolescents. The procedure employed to accomplish this objective was threefold:

1. Subject selected groups of students from six Florida junior high schools to three experimental curricula for a three-year period.
2. Test the effects of the curricula by administering a comprehensive evaluation program to the students in the experimental group and those in a comparable control group.
3. Draw inferences and form recommendations on the basis of analysis of the data gathered in the evaluation program. Other feedback was also taken into consideration in the formulation of recommendations)

The procedure outlined above raises several important questions:

1. What were the schools like and how were they selected?
2. How were the students selected?
3. How were the teachers selected?
4. What special instructions or preparations were given the teachers and the students?
5. What was the nature of the test battery?
6. What were the methods of analysis?

Within the framework of the project, every effort was made to accomplish representative sampling of schools, students, and teachers. Bias was reduced wherever possible. The following sections of this chapter attempt to answer the previously stated questions as fully as possible.

A. The Schools

Six junior high schools were selected from four urban population centers in Florida. These centers along with their 1960 census figures are as follows: Miami (852,705), Jacksonville (372,569), St. Petersburg (324,842), and Pensacola (128,048). Once the centers had been selected, the next step was to choose the six schools. After the Project Directors met with the school supervisors of the metropolitan areas, principals of the larger schools and local English supervisors were contacted. Principals interested and willing to cooperate in the project submitted their names for consideration, and through the screening efforts of the Center staff and the English supervisors, six schools were selected. The prime factors for selection were size (the project required relatively large numbers of students from each grade level), cooperation and enthusiasm of the administrators, and socio-economic settings of the various schools. When the selections had been made, the staff was confident that the schools in the Miami area represented either low or upper middle income families. Similarly, the schools in the St. Petersburg area represented either middle or upper middle income families. The schools in Jacksonville and Pensacola both represented middle income families. The schools along with their locations and enrollment figures for 1964-65 are listed below:

Madeira Beach, St. Petersburg:	1,167 -- hereafter to be called School 1.
Tyrone, St. Petersburg:	1,325 -- hereafter to be called School 2.

Warrington, Pensacola: 1,194 -- hereafter to be called School 3.
Stillwell, Jacksonville: 1,527 -- hereafter to be called School 4.
Ponce de Leon, Miami: 1,897 -- hereafter to be called School 5.
Brownsville, Miami: 1,453 -- hereafter to be called School 6.

B. The Students

(1) The Experimental Group

With the stipulation that the experimental group be composed of a representative sampling of the students in each school, the Center turned over responsibility for selection to the principals, teachers, and guidance personnel of the respective schools. Other criteria established were (1) that 50-70 students (or two normal sized classes) would be assigned to each of the three experimental curricula in each school, (2) that the students would be beginning seventh graders, (3) that students selected for the program would be allowed to withdraw at their parents' request.

Slightly more than 1,000 students in the six schools were assigned to the three experimental curricula at the outset of the program in the fall of 1964. At the end of the three-year period, approximately 750 students of the original group had completed their junior high school English requirements in one of the three curricula.

(2) The Control Group

For the purpose of making comparisons, the Center requested prior to the time of final evaluation that administrators of the six schools select a control group. This group was composed of ninth graders, comparable in ability to those in the three experimental curricula, who had been enrolled in the conventional English program offered at the schools. In one unfortunate instance, the criterion established for selection of this group was ignored, the result being that the group had to be dropped from the study. Fortunately, only 26 students were involved--not enough to affect the outcome of the study.

C. The Teachers

(1) Selection

Selection of teachers was also left to the principals. The Center stipulated that the teachers be representative of the English faculties in the project schools. It was assumed that the "teacher variable" would approach constancy for each of three curricula by the time the evaluation phase was reached.

A teacher selected for the program taught two sections of one of the three experimental curricula, as well as some English classes which were part of the school's conventional offerings. Some teachers taught in the experimental program for more than one year, perhaps following a seventh grade class into the eighth grade.

(2) In-Service Preparation

The preparing of teachers for the project was carried out in two ways. The first method was the pre-school seminar in which teachers and administrators from the various schools were brought together during the summer at some central location in the state. At this time, the Center staff conducted an intensive readiness program. Teachers were introduced to the new materials, were given a page-by-page review of the daily lesson plans, and were encouraged to react to the curricula as much as they desire.

The second method was that of periodic visits by the Center staff, at least a monthly visit to each school. At these times, immediate problems were discussed and future problems anticipated.

(3) Special Instructions

Since the project was to be carried out as controlled research, teachers were cautioned at the outset in the following way. First, they were told that the daily plans in each curricula should be followed carefully. Knowing that students differ somewhat from school to school, and that teachers have different interests and approaches, the Center staff tried to provide some flexibility within the framework of the curricula. Yet, for obvious reasons, the success of the research was contingent upon uniformity of content and presentation. Teachers were also told that all plans and materials connected with the experimental curricula, except for state-adopted books, were not to be used in regular English classes. Although it was possible that some overlapping of content would exist in the experimental and regular classes, teachers were asked to keep this "overflow" at a minimum

SUMMARY OF THE LIMITATIONS OF THE DESIGN

The Center staff fully realized that the nature and scope of the Florida State project placed several obvious limitations on the research design. There were a number of variables that had to be taken into account:

(1) though equivalent classes were scheduled within each school, there were marked differences in student ability and attitude

from one school to the other which affected the pooling of data from the various schools.

(2) though competent teachers were chosen for all experimental classes, difference in teacher ability and enthusiasm remained uneven. Over the three-year period the factor of teaching ability should have been equalized, yet some students probably received three years of superior teaching while others may have had less than superior teachers all three years.

(3) though all schools in the project had relatively stable populations, pupils did drop out during the three-year period. In a very few cases the experimental group was notably reduced by the ninth grade. In spite of problems of this nature, however, the project personnel felt that statistical treatment was of considerable value.

D. The Nature of the Test Battery

At the end of the three-year period those students who had completed grades seven, eight, and nine in one of three experimental curricula and those students of the control group were subjected to a comprehensive battery of tests, objective and subjective in nature, over a period of several days. The results of these tests comprised the major body of raw data which was later statistically analyzed. Another important source of data was the semantic differential, an instrument administered only to the experimental groups at the end of each school year. A final source of data was the subjective observations of individual teachers. Although all the objective tests were revised before being administered to the experimental and control groups, high reliability was not a specific goal of the Center staff, since the research consisted of observing differences between groups; hence, chance would uniformly affect the means of each group on each test, regardless of test reliability. Considering the nature and purposes of the tests, reliability ratings were generally considered good or satisfactory. (For samples of each instrument, see Appendix)

1. The Test Battery

a. The Objective Instruments

(1) The Sentence Relationships Test

This instrument was developed by Roy C. O'Donnell of the Florida State University Department of English Education. Consisting of fifty items of the three-option multiple-response type, it was designed to measure a student's ability to recognize structural relationships of words in English sentences without use of grammatical terminology. O'Donnell's description of the test, its purposes, validity and limitations, is outlined in his research study supported by the U. S. Office of Education, Cooperative Research Project No. 1524:

> "Since the test is concerned with recognition of structural relationships of words in sentences, it seemed desirable to exclude as much lexical meaning from the test items as possible. For this reason nonsense words were substituted for most of the nouns, verbs, adjectives, and adverbs in the option sentences. However, in order to aid in identifying the grammatical relationships to be recognized in the options, English vocabulary was used in the pattern sentences. Since there are few clues of lexical meaning in the option sentences, the persons taking the test presumably have to depend almost entirely on signals of syntactic structure in recognizing the correct options. Normal English word order was retained in the nonsense sentences; English function words (prepositions,

> conjunctions, articles, auxiliaries, etc.) were used to provide a distinctively English grammatical framework in the sentences; inflectional and derivational affixes were used to provide signals for distinguishing parts of speech."(2)

The structure test includes items designed to test ability to recognize the following types of grammatical structures.

A. Predication--six items (complete subject and complete predicate, 2; simple subject and predicate verb, 4).

B. Complementation--ten items (linking verb and subjective complement, 2; verb and direct object, 4; verb and objective complement, 2).

C. Coordination--four items (coordinate clauses, 2; coordinate nouns, 1; coordinate adjectives, 1).

D. Modification--twenty-four items (main clause and adverb clause, 4; verb and adverb, 2; verb and prepositional phrase, 2; noun and prepositional phrase, 2; noun and adjective clause, 4; noun and object of preposition in modifying phrase, 2; noun and appositive, 2; noun and modifying adjective, 4).

E. Cross-reference--six items (antecedent and pronoun, 2; predicate and predicate substitute, 2; "dummy subject" and subject, 2).

The reliability of the test was established by standard statistical procecures. Preliminary results were used for item analysis, and unsatisfactory items were revised. Split-half reliability coefficient (Spearman-Brown formula) was .88, and the inter-item consistency coefficient (Kuder-Richardson formula) was .86.

(2) The Poetry Reading Test

This forty-item test is of the four-option multiple-response type and was developed by the Center staff. Students were asked questions about ten short poems. The questions required the students to demonstrate basic reading comprehension, a limited technical vocabulary of literature, simple and complex interpretational abilities, and certain forms of judgment. After rigorous item analyses and several revisions, the staff was able to improve the reliability of the test to .81 (Kuder-Richardson formula 21).

(3) The Short Story Reading Test

This twenty-six item test was also of the four-option multiple-response type and was developed by the Center staff. First, students were required to read a short story (Walter Van Tilburg Clark's "Trial at Arms"). The instrument tested their reading abilities in much the same way as the "Poetry Test," including basic reading comprehension, simple and complex interpretational skills, and judgment. The reliability of the test was set at .47 (Kuder-Richardson formula 20).

(4) The Language Concepts Test

This test was also developed by the Center staff. It consisted of twenty items of the four-option multiple-response type. The instrument tested a student's knowledge of language concepts other than those normally associated with grammatical systems. There was also an attempt to test a student's ability to conceptualize certain kinds of relationships. The reliability of the test was set at .55 (Kuder-Richardson formula 20).

(5) Sentence Combining Test

This instrument, also developed by O'Donnell, was administered for the purpose of observing and comparing syntactic maturity of students. Students were presented with a passage of simple declarative sentences which they were asked to rewrite, expanding the short sentences into longer ones.

b. The Subjective Instruments

(1) Writing Problem #1

The first of two pieces of controlled writing which the students were required to undertake, Writing Problem #1 demanded an argumentative approach. Students were asked to develop a piece of writing in which they voiced and supported a specific kind of "protest." The directions for the assignment took the following form:

> Protest movements seem to be the thing nowadays. People are voicing their protests in many ways: BAN THE BOMB! . . . ABOLISH CAPITAL PUNISHMENT! . . . etc. Protest movements aren't always national in scope. Some protest movements are local; they can affect schools, neighborhoods, recreational facilities, among other things.
>
> In a page or so (approximately 150 words), develop your ideas on some specific kind of protest (local or national). Begin by explaining what you are protesting. Then, go on to give reasons which will logically support the worthiness of your protest. Try to make your potential readers share your feelings.
>
> You may conclude your paper if you wish by suggesting some course of action which would help solve the problem or problems which caused your protest. For example, what kind of alternative would you propose if your protest topic were ABOLISH THE DRAFT?
>
> Entitle your paper with the slogan (similar to those capitalized above) which represents your protest.

(2) Writing Problem #2

This was also a controlled assignment in which students developed a piece of writing that was expository. They generally proceeded from a qualification of a term to a personal account of the implications of the term. The specific directions were as follows:

> You are currently being exposed to a new twentieth-century idea. It is called Mod. It means Modern. It is also linked with expressions like "swinging," "camp," "pop," "turned-on," and "cool." Mod has penetrated all parts of our culture. Its influence can be seen in fashion designs (for example, mini-skirts), popular music, art, as well as the way people look, talk, and act. What does Mod do or not do for you? What does it say about your generation?
>
> In a page or so (approximately 150 words), develop your ideas on the questions above. Logically support your answers. It is not necessary to entitle your papers.

(3) Free Response to Short Story

This "unstructured" writing assignment gave students a chance to read and react freely to a piece of fiction (John O'Hara's "Do You Like It Here?"). No specific requirements were stipulated as to how much a student should write. Approximately one hour was allowed for reading and reacting. Students were handed the story in mimeographed form and told to "read and react to this story." The Center staff felt that the story selected was highly readable and that it lent itself to numerous possibilities for reaction.

(4) Free Response to Poetry

This second "unstructured" assignment was identical to the first except for the selction. The poem (Fred Lape's "From This The Strength") was chosen because it possesses a basic narrative thread and is rich in imagery.

2. The Semantic Differential

The "semantic differential" was developed by Peter Dunn-Rankin, an educational researcher at the University of Hawaii who later initiated the statistical analysis of the test data. Dunn-Rankin studied the opinions of several proponents of the instrument, including H. H. Remmers and J. Thomas Hastings, before formulating the F.S.U. version. Composed of a series of bi-polar adjectives separated by a graphic rating scale, the semantic differential is essentially an attitude index. Dunn-Rankin notes:

> The differential created at Project English F.S.U. differed from the typical instrument in two specific ways. The first difference was that the sets of bi-polar adjectives chosen were scored and anlyzed over a wide set of concepts particularly related to the English curriculum in the Junior High School. These concepts included: assignments, poems, stories, English course, tests, teacher, etc. This was done so that the factor structures of the bi-polar adjectives would remain stable when different concepts were used with the same set of scales. Secondly, the instrument was constructed so that a minimum amount of time was necessary to score and analyze the results.
>
> Four dimensions were identified which were felt to be relevant to the analysis of reactions to curriculum in the language arts. These dimensions and appropriate scales were as follows:
>
> Evaluation:
>
> valuable . . . . . . worthless
> good . . . . . . bad
> tasteful . . . . . . distasteful
> pleasurable . . . . . . painful
> interesting . . . . . . boring
>
> Complexity:
>
> easy . . . . . . hard
> light . . . . . . heavy
> simple . . . . . . complex

Unusuality:

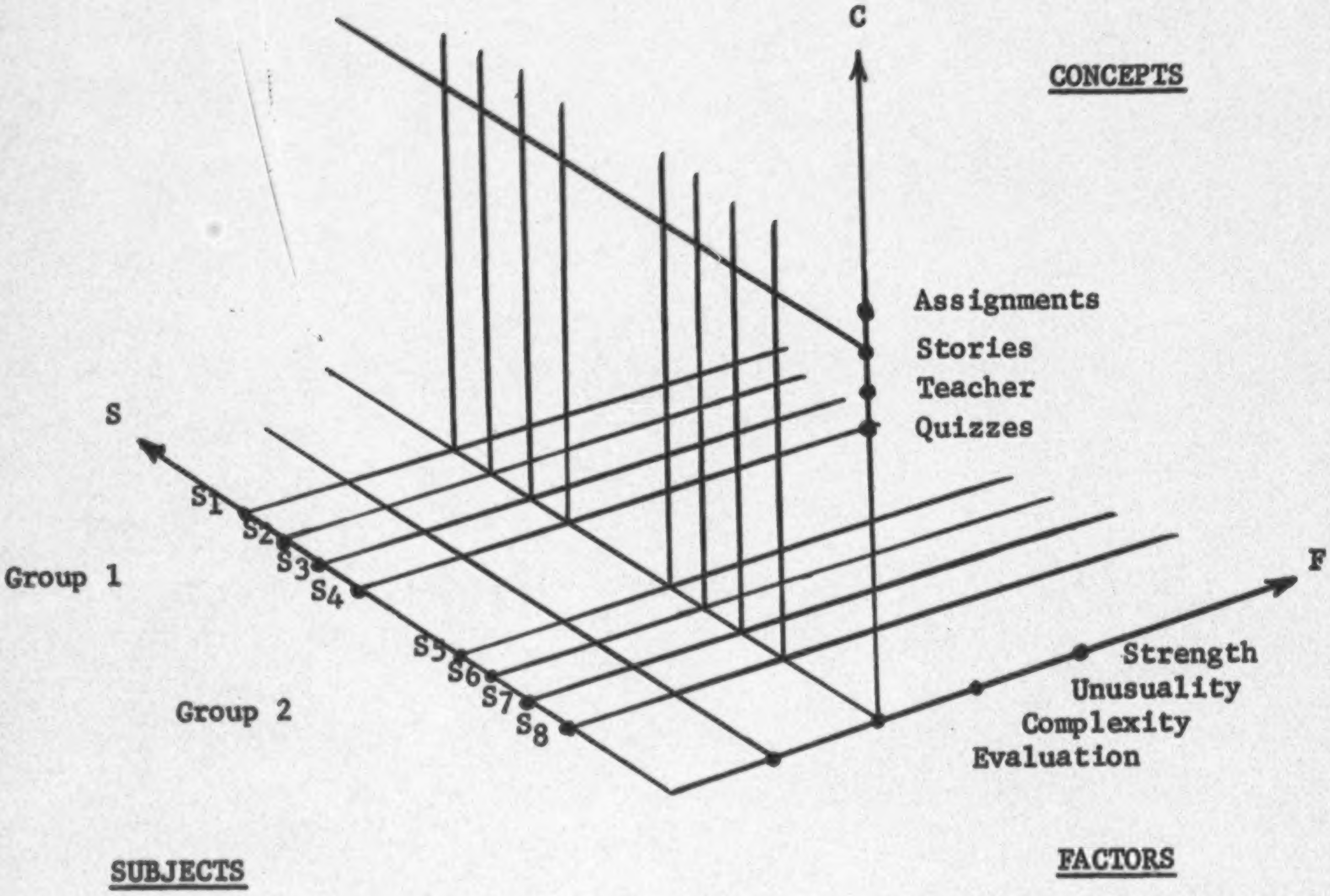
unusual . . . . . . usual
new . . . . . . old

Potency:

honest . . . . . . dishonest
strong . . . . . . weak
complete . . . . . . incomplete

Three dimensions, Evaluation and Complexity and Unusuality maintained their factor structure over all the concepts utilized in pilot studies. The Potency factors were less definite. Perhaps it stretched the imagination to determine what was meant by a dishonest poem. The bipolar pair "humorous-serious" changed its structure depending upon the concept being rated.

The value of the semantic differential as a comparative instrument can be best illustrated by examining the 3-dimensional representation:


C
CONCEPTS
Assignments
Stories
Teacher
Quizzes
S
S_1
S_2
S_3
S_4
Group 1
S_5
S_6
S_7
S_8
Group 2
F
Strength
Unusuality
Complexity
Evaluation
SUBJECTS
FACTORS

It is not difficult to see that a variety of questions can be asked within a structure of this type.

Specific questions that the Project English staff wanted to answer were:

1. Is the attitude of the students toward English programs in each curriculum the same? Are there differences in attitude between the three curricular groups on a single concept or on a single factor or both?

2. Did the students in one curriculum see their program as being more valuable, more unusual, or simpler than students in other programs?

3. Did students indicate any difference between the dimensions of factors of attitude? Were there, for example, programs seen as highly unusual, complex, but not very valuable?

4. Did the students differentiate some aspects of the curriculum as more valuable, complex, or unusual than other areas of the curriculum? Were, for example, written assignments more complex and difficult than reading assignments? Which were viewed as more valuable?

3. The Testing Procedure

The main battery of tests was administered at the end of the 1967 school year to the experimental and control groups in each of the six schools. Specific arrangements were left up to individual principals and teachers. By and large, the objective battery was given in large blocks, perhaps taking one full school day or two consecutive mornings or afternoons. The subjective instruments (the free and controlled writings assignments) were administered separately during the regular English classes. The "semantic differential," designed to delineate attitudes toward the three curricula, was administered to the experimental classes at the end of each school year.

E. The Methods of Analysis

Processing and analyzing the test data consisted of several procedures, among which must be included sampling techniques, special and general analytical methods, and methods of determining significant differences.

a. Sampling

Ten separate instruments were used in the evaluation program. The data derived from five of these instruments were randomized. Those instruments which required random sampling were as follows:

1. Writing Problem #1
2. Writing Problem #2
3. Free Response to Short Story
4. Free Response to Poetry
5. Sentence Combining Test

These instruments, with the exception of the "Sentence Combining Test," were designed largely to measure subjective responses. Evaluation procedures prohibited more complete assessment. After separating the data from each of the above instruments according to school and group (I, II, III or IV 'Control'), a random sample was drawn from each group so that all were equally represented. The total number of students involved in each of the five samples was 184 as compared to the total population of 860.

b. Special Analytical Techniques

Since all but one of the above instruments were designed to measure subjective responses of students, special analytical techniques had to be used before submitting them to more general statistical analysis. Although the "Sentence Combining Test" was designed to gauge objective responses, it too required special processing in order that data might be obtained which could be used in making statistical comparisons.

Preparing the two controlled writing samples for analysis required that each paper be carefully evaluated in terms of some criteria articulated by competent personnel. In the case of both samples, a modified version of Paul Diederich's evaluation procedure was adopted (see Paul B. Diederich, "How to Measure Growth in Writing Ability," English Journal, 55 (April 1966), pp. 435-449.). The rating card used was identical with that suggested by Diederich:

L M H

TOPIC________ READER________ STUDENT________ SCHOOL________ CURR._____

	Low		Middle		High
Ideas	2	4	6	8	10
Organization.	2	4	6	8	10
Wording	1	2	3	4	5
Flavor.	1	2	3	4	5
Usage	1	2	3	4	5
Punctuation	1	2	3	4	5
Spelling.	1	2	3	4	5
Handwriting	1	2	3	4	5

Sum of ratings 28

Reading of the papers was undertaken by two members of the Center staff who were thoroughly familiarized with the technique for evaluation. Both participated in a preliminary evaluation period designed to improve inter-rater reliability. After several trial runs, the reliability of the raters was set at .906. The scores assigned the papers in the random sample represented a combined total of numerical points given each paper by both raters. For example, the sum of points awarded a certain paper by one rater might have been 35 points; the other rater may have awarded the same paper 33 points. The total point score would therefore have been 68 points. No attempt was made to adjust scores, since the Center was concerned with comparing mean scores for the various groups.

Analysis of the two free writing responses also required special evaluation procedures. Rather than attempting to assign the papers numerical scores, the Center relied rather heavily on an existing study dealing with the analysis of student responses to literature--that of James R. Squire (The Responses of Adolescents While Reading Four Short Stories, NCTE, 1964). After a considerable amount of study, Squire was able to postulate a set of categories into which most of the responses of the subject population (10th graders) could be placed. Described briefly, the categories include:

> Literary Judgments: Direct or implied judgments on the story as an artistic work. . . . II. Interpretational Responses: Reactions in which the reader generalizes and attempts to discover the meaning of the stories, the motivational forces, and the nature of the characters, including references to evidence from the stories marshalled to support interpretational generalizations. . . . III. Narrational Responses: Responses in which the reader reports details or facts in the story without attempting to interpret. . . . IV. Associational Responses: Responses in which the reader associates ideas, events, or places, and people with his own experience other than the association of a character with himself. . . . V. Self-Involvement: Responses in which the reader associates himself with the behavior and/or emotions of characters. . . . VI. Prescriptive Judgments: Responses in which the reader prescribes a course

> of action for a character based on some absolute standard. . . . VII. Miscellaneous Responses: Responses which were not coded elsewhere. (3)

In analyzing the responses to the short story, the Center staff adopted Squire's categories with one addition--the "unity response," which described a student's desire to see more symmetry; generally speaking it appeared in the form of a reaction to an incomplete quality which the student felt was inherent in the story.

Analysis of the poem was done somewhat differently. The two staff members involved in the reading felt a need to revise the Squire model. In addition to "Literary Judgments," "Self-Involvement," and "Narrational Reactions," the following categories were included:

Value Judgments: Direct or implied judgments of a personal nature, not relevant to the aesthetics of the poem . . . . Concrete Interpretation: Reactions in which the reader generalizes about meaning on a literal level; no attempt to develop analogies or place details in new contexts. . . Abstract Interpretation: Reactions in which reader departs from literal interpretation, sees analogies, relates details to other contexts. . . . General Tangents: Reaction in which reader digresses at some length on a point which has no relevance to the literature; somewhat like Squire's "Associational Responses". . . . Unity Response: This category was added to the short story list and is defined as before--the reader's desire to see wholeness in the poem; a feeling of incompleteness usually accompanied by a desire to see the poem conclude in more complete or symmetrical fashion.

The preliminary analysis of the "Sentence Combining Test" consisted of counting the total number of words in which each student rewrote the passage, the total number of T-units, and the total number of clauses, main and subordinate. From these counts, the following statistics were derived for each student in the sample:

1. words per T-unit
2. words per clause
3. clauses per T-unit

According to Kellogg Hunt in his Grammatical Structures Written at Three Grade Levels, NCTE, 1965: "As a potential index of maturity, the (T) unit has the advantage of preserving all the subordination achieved by a student, and all of his coordination between words and phrases and subordinate clauses."

c. General Analytical Techniques

With the exception of the free responses to the short story and poem, all the data from the four objective tests, the two controlled writing assignments, the "Sentence Combining Test," and the semantic differential were submitted for comparative analysis to the BMD05V computer program, version of July 22, 1965. More commonly known as the General Linear Hypothesis, this program provides an analysis of variance on the test data from each instrument. The principal reason for using this program was that it allowed for unequal replications within the various cells by adjusting the means of the independent variables for each set of test data. For a detailed description of the program see Biomedical Computer Programs, Health Sciences Computing Facility, Department of Preventive Medicine and Public Health, School of Medicine, UCLA, 1964. Because of a missing cell (Curriculum IV, School 1), the number of independent variables was reduced from 24 to 23. The output obtained from this program included the following:

1. means and standard deviations of the dependent variables
2. sums of squares explained by the hypotheses
3. residual sums of squares
4. F-tests and degrees of freedom

The design of the analysis of variance took the form of a two-factor mixed model with interaction where Curriculum (four levels) was fixed and Schools (six levels) were random. For a comprehensive description of this model, see Charles R. Hicks, _Fundamental Concepts in the Designs of Experiments_, Holt, Rinehart and Winston, N.Y., 1966, Ch. 10. Following the analysis of variance, the weighted means of the curricula were tested in the following manner. F-tests for Curriculum and Interaction were noted and checked for significance at the .01 level. Once this information was acquired, it was submitted to a set of four propositions:

1. If the Interaction is _not_ significant and the Curriculum factor is significant, at least two of the curricula are statistically different.
2. If the Interaction is _not_ significant and the Curriculum factor is _not_ significant, there is not statistical difference between the curricula.

3. If the Interaction is significant, and the Curriculum factor is significant, on the average at least one of the curricula is statistically different from another. (This may not be true in specific schools)

4. If the Interaction is significant and the Curriculum factor is not significant, on the average there are no statistical differences between curricula. (This may not be true in specific schools)

This procedure enabled the schools to be factored from the comparative analysis of the four curricula. How each of the curricula fared in relation to the four propositions is the subject of the next chapter.

The F-test performed on the Schools factor (the ratio between the mean square for Schools and the mean square for error) enabled an additional generalization. That is, if the F-test for Schools yielded a significant figure, it was possible to conclude that there were significant differences between the schools.

In addition to these comparisons, the battery was submitted to Kendall's Coefficient of Concordance (see Merle W. Tate and Richard C. Clelland, Nonparametric and Shortcut Statistics, Interstate Printers and Publishers, In., Danville, Ill., 1957, pp. 19-21). This formula enabled conclusions to be drawn about the relative effectiveness of the four curricula, according to the rank order of the weighted means on each test.

d. The Missing Cell

School 1, Curriculum IV (one of the control groups) was deleted from the final analysis, reducing the independent variables from

24 to 23. The deletion of this group, which was not selected in a representative manner, had little effect on the final outcome of the study other than causing the loss of one degree of freedom (a reduction from 15 to 14).

Chapter 3

FINDINGS AND PRELIMINARY CONCLUSIONS

In an attempt to explain the results of the evaluation program as lucidly as possible, graphs and tables accompany each set of test scores. The test data is reported in four major divisions, each of which is further divided according to specific instruments. The sequence can be outlined as follows:

I. Analysis of Variance
    A. The Poetry Reading Test
    B. The Short Story Reading Test
    C. The Sentence Relationships Test
    D. The Language Concepts Test
    E. The Combined Objective Test Battery
    F. The Sentence Combining Test
        1. Words Per T-Unit
        2. Words Per Clause
        3. Clauses Per T-Unit
    G. Controlled Writing Problem #1
    H. Controlled Writing Problem #2
    I. Semantic Differential
        1. 1965 Data
            a. Curriculum Complexity
            b. Curriculum Evaluation

        - c. Assignments Complexity
        - d. Assignments Evaluation
    - 2. 1966 Data
        - a. Curriculum Complexity
        - b. Curriculum Evaluation
        - c. Assignments Complexity
        - d. Assignments Evaluation
    - 3. 1967 Data
        - a. Curriculum Complexity
        - b. Curriculum Evaluation
        - c. Assignments Complexity
        - d. Assignments Evaluation
- II. Kendall's Coefficient of Concordance
    - A. Applied to Total Battery
    - B. Applied to Semantic Differential
- III. Categorizing of Free Responses to Literature
    - A. The Short Story
    - B. The Poem

To facilitate interpretation of the data a sequential format has been adopted in reporting the results of each test. First, a table appears showing group means according to school and curriculum, and the weighted means according to curriculum; this table is followed by another which illustrates the same information graphically. A third table, describing the analysis of variance, appears next; beneath this table are the statistical inferences which were drawn after submitting the F-ratios for Curricula, Schools and Interaction to the propositional table described in Chapter 2, page 39 . F-ratios significant at the .01

level are starred.

I. Analysis of Variance

The reader should keep in mind that the General Linear Hypothesis Model enabled the project researchers to make comparisons between the weighted means of the four curricula without overt regard to the differences between schools, even though these differences were often quite significant. The variance between schools was accounted for by the Interaction statistic, and any inferences made about differences between curricular effects took the Interaction statistic into consideration. This will become more obvious as one observes that each of the four propositions to which the variance tests (in this case, F-tests) were applied is dependent upon the Interaction statistic. For all practical purposes, the Interaction statistic enabled the researchers to factor out the differences between schools.

(IA) The Poetry Reading Test

Curriculum	School	Number of Subjects	Group Means	Standard Deviations of Group Means	Weighted Means of Curricula
I (Tri-Component)	1	49	20.43	3.85	21.25
	2	43	22.56	5.99	
	3	33	23.91	5.50	
	4	38	21.05	4.86	
	5	39	23.10	5.09	
	6	30	15.63	5.57	
II (Thematic Literature-Centered)	1	58	21.81	3.96	19.37
	2	34	15.88	8.39	
	3	32	21.06	7.58	
	4	46	18.26	6.34	
	5	50	21.94	4.76	
	6	42	15.67	5.26	
III (Cognitive)	1	53	20.55	4.83	19.90
	2	39	20.62	7.53	
	3	25	19.72	7.14	
	4	36	20.86	6.62	
	5	43	23.14	5.09	
	6	46	14.87	5.73	
IV (Control)	1	25	19.00	7.96	18.95
	2	24	19.38	4.17	
	3	25	19.04	4.71	
	4	22	22.09	3.85	
	5	28	16.00	4.91	

TABLE 1A

POETRY TEST
Mean Scores by Schools and by Curricula

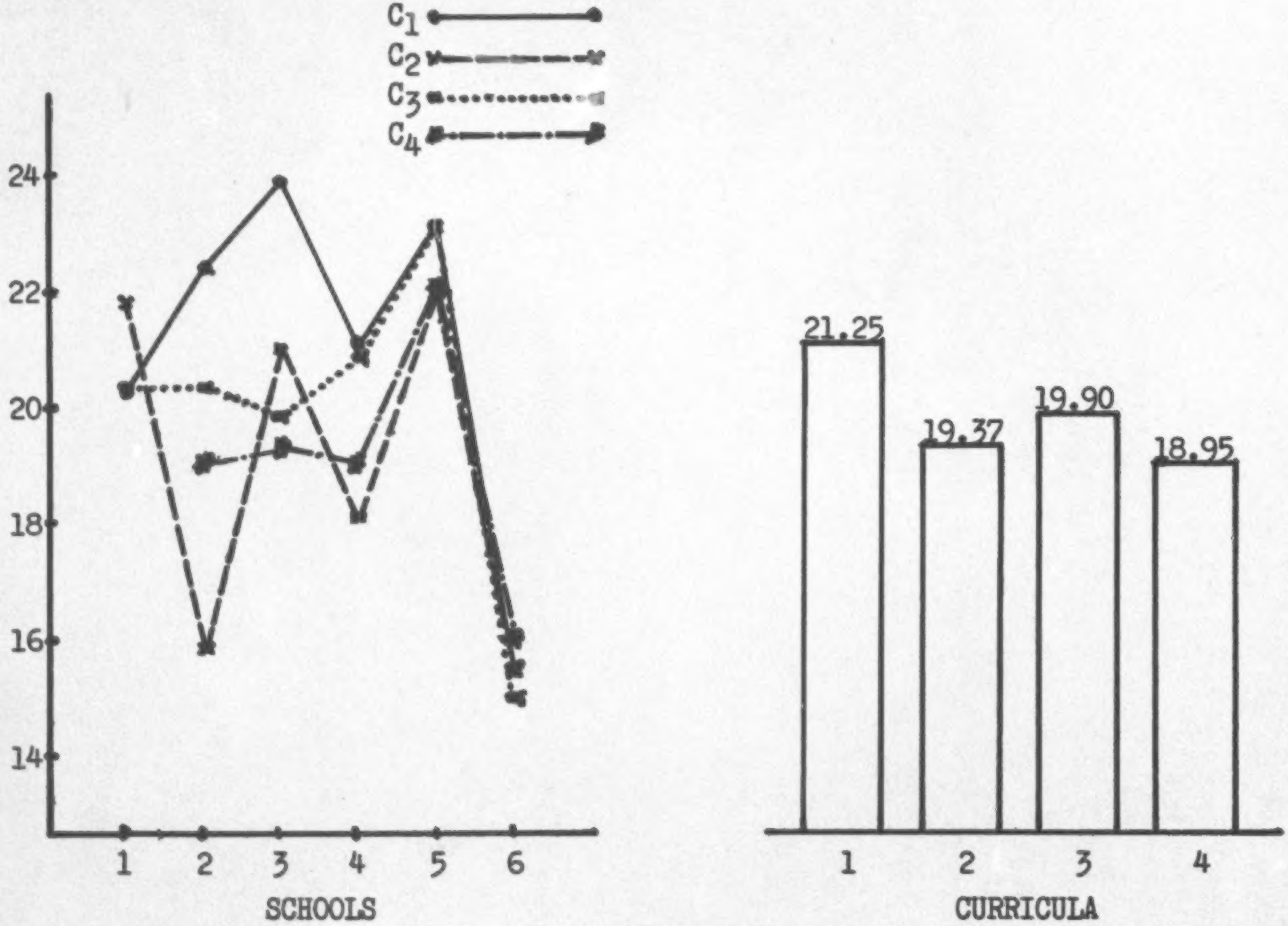


TABLE 1B

TABLE 1C

Sources of Variation	Degrees of Freedom	Sums of Squares	Mean Squares	F-ratio
Curricula	3	482.07	160.69	1.92
Schools	5	3761.60	752.32	23.20*
Interaction	14	1171.94	83.71	2.58
Error	837	27103.62	32.38	

Analysis of Variance with Poetry Reading Test as criterion

Weighted Means in Descending Order:

I (21.25) III (19.90) II (19.37) IV (18.95)

Inference #1: SINCE THE INTERACTION IS NOT SIGNIFICANT AND THE CURRICULUM FACTOR IS NOT SIGNIFICANT, THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN THE CURRICULA.

Inference #2: SINCE THE SCHOOLS FACTOR IS SIGNIFICANT, THERE ARE SIGNIFICANT DIFFERENCES BETWEEN SCHOOLS.

(IB) The Short Story Reading Test

Curriculum	School	Number of Subjects	Group Means	Standard Deviations of Group Means	Weighted Means of Curricula
I (Tri-Component)	1	49	13.04	2.69	13.35
	2	43	13.88	3.77	
	3	33	15.18	3.34	
	4	38	13.26	3.24	
	5	39	13.44	2.55	
	6	30	10.97	4.11	
II (Thematic Literature-Centered)	1	58	13.48	2.51	12.94
	2	34	9.74	6.00	
	3	32	14.34	2.63	
	4	46	13.56	2.58	
	5	50	14.56	3.61	
	6	42	11.10	3.66	
III (Cognitive)	1	53	14.08	3.04	13.34
	2	39	14.62	5.26	
	3	25	14.44	3.37	
	4	36	14.47	3.41	
	5	43	13.00	3.12	
	6	46	10.26	3.89	
IV (Control)	1	25	11.60	4.26	12.81
	2	24	13.58	3.24	
	3	25	13.20	2.18	
	4	22	14.32	2.42	
	5	28	11.71	3.18	

TABLE 2A

SHORT STORY TEST
Mean Scores by Schools and by Curricula

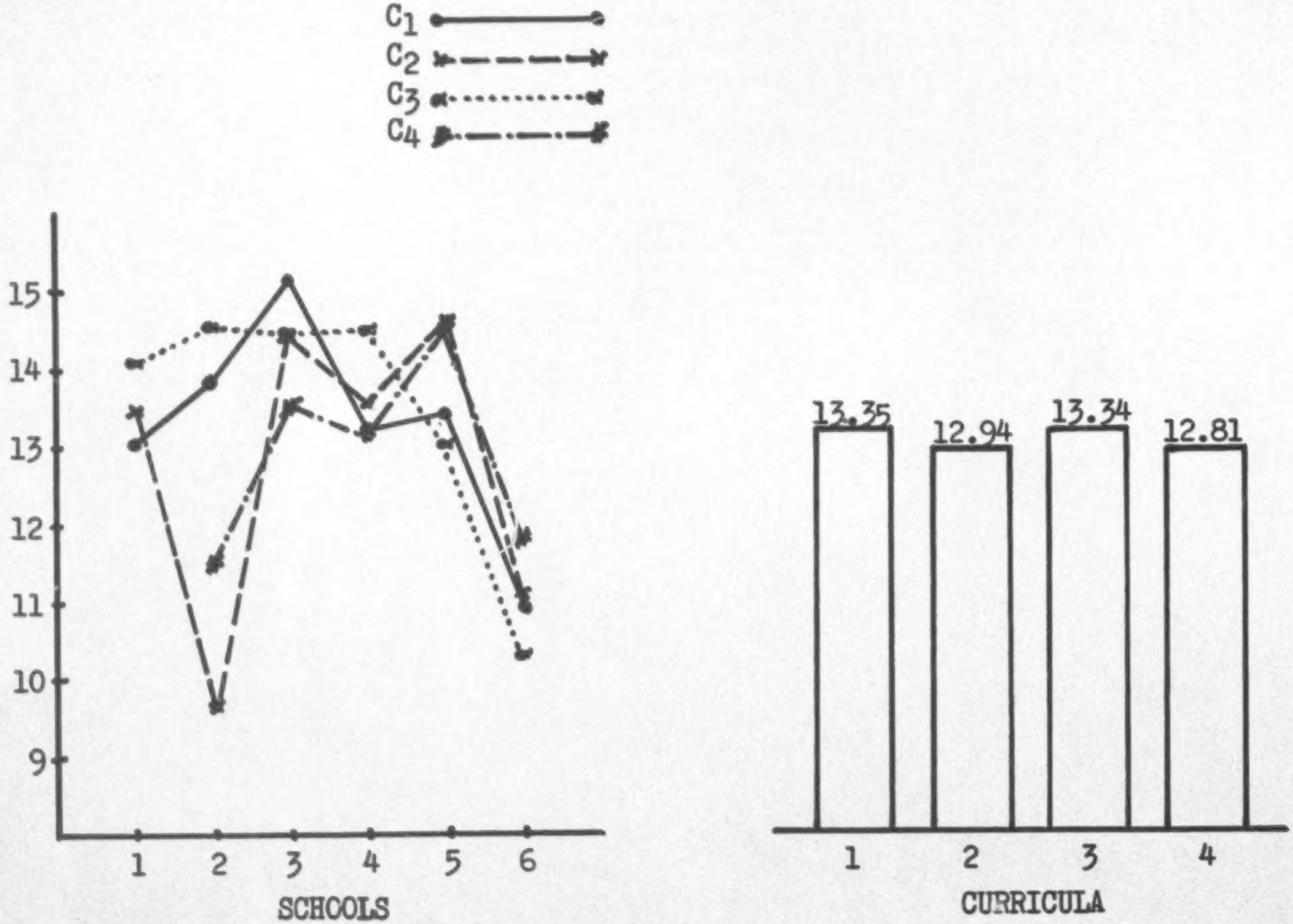


TABLE 2B

TABLE 2C

Sources of Variation	Degrees of Freedom	Sums of Squares	Mean Squares	F-ratio
Curricula	3	60.04	20.01	.40
Schools	5	957.93	191.59	15.75*
Interaction	14	694.28	49.59	4.08*
Error	837	10165.98	121.46	

Analysis of Variance with Short Story Reading Test as criterion

Weighted Means in Descending Order:

I (13.34) III (13.34) II (12.94) IV (12.81)

Inference #1: SINCE THE INTERACTION IS SIGNIFICANT AND THE CURRICULUM FACTOR IS NOT SIGNIFICANT, ON THE AVERAGE THERE ARE NO STATISTICAL DIFFERENCES BETWEEN CURRICULA. (THIS MAY NOT BE TRUE IN SPECIFIC SCHOOLS)

Inference #2: SINCE THE SCHOOLS FACTOR IS SIGNIFICANT, THERE ARE SIGNIFICANT DIFFERENCES BETWEEN SCHOOLS.

(IC) The Sentence Relationships Test

Curriculum	School	Number of Subjects	Group Means	Standard Deviations of Group Means	Weighted Means of Curricula
I (Tri-Component)	1	49	17.80	4.67	21.04
	2	43	21.02	7.29	
	3	33	24.33	7.07	
	4	38	21.39	5.71	
	5	39	24.33	6.51	
	6	30	18.00	6.21	
II (Thematic Literature-Centered)	1	58	16.41	4.40	17.61
	2	34	14.24	8.94	
	3	32	18.72	6.00	
	4	46	19.41	5.65	
	5	50	19.30	5.06	
	6	42	17.19	6.40	
III (Cognitive)	1	53	18.23	5.08	19.38
	2	39	19.85	7.66	
	3	25	18.16	4.89	
	4	36	20.28	5.34	
	5	43	23.95	7.48	
	6	46	15.98	6.02	
IV (Control)	1	25	17.92	5.51	18.67
	2	24	20.00	5.98	
	3	25	19.20	5.87	
	4	22	19.59	8.58	
	5	28	17.00	4.16	

TABLE 3A

SENTENCE RELATIONSHIPS TEST
Mean Scores by Schools and by Curricula

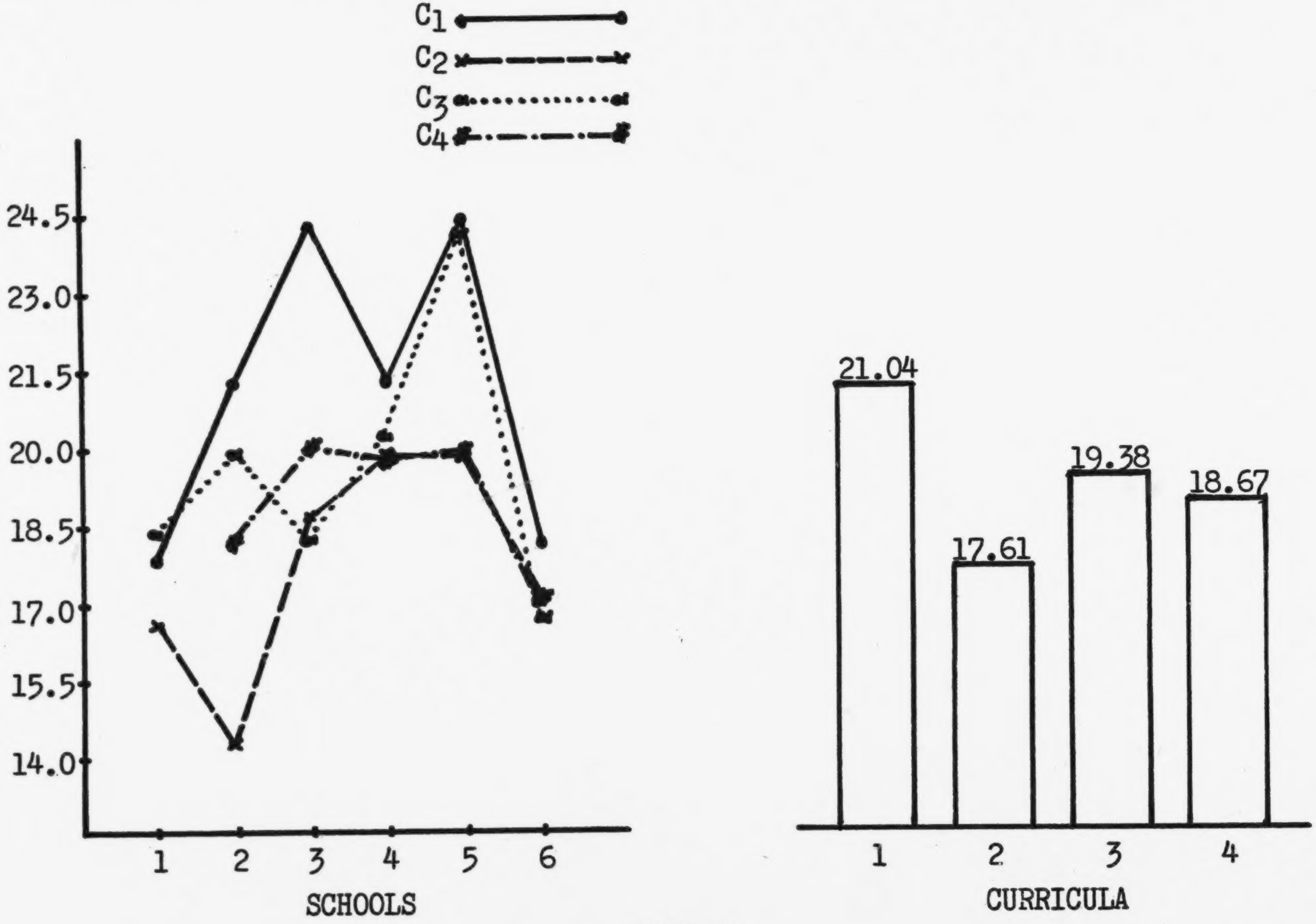


TABLE 3B

TABLE 3C

Sources of Variation	Degrees of Freedom	Sums of Squares	Mean Squares	F-ratio
Curricula	3	1546.32	515.44	5.56*
Schools	5	1905.69	381.14	10.10*
Interaction	14	1296.98	92.64	2.46*
Error	837	31551.78	37.70	

Analysis of Variance with Sentence Relationships Test as criterion

Weighted Means in Descending Order:

I (21.04) III (19.38) IV (18.67) II (17.61)

Inference #1: SINCE THE INTERACTION IS SIGNIFICANT, AND THE CURRICULUM FACTOR IS SIGNIFICANT, ON THE AVERAGE AT LEAST ONE OF THE CURRICULA IS STATISTICALLY DIFFERENT FROM ANOTHER. (THIS MAY NOT BE TRUE IN SPECIFIC SCHOOLS)

Thus it is possible to conclude that Curriculum I, according to the results of the Sentence Relationships Test, is significantly more effective than Curriculum II, keeping in mind, of course, that differences between groups in specific schools may not be significant.

Inference #2: SINCE THE SCHOOLS FACTOR IS SIGNIFICANT, THERE ARE SIGNIFICANT DIFFERENCES BETWEEN SCHOOLS.

(ID) The Language Concepts Test

Curriculum	School	Number of Subjects	Group Means	Standard Deviations of Group Means	Weighted Means of Curricula
I (Tri-Component)	1	49	8.55	2.43	8.75
	2	43	8.37	3.75	
	3	33	9.73	2.48	
	4	38	9.11	2.61	
	5	39	8.82	2.93	
	6	30	8.00	2.80	
II (Thematic Literature-Centered)	1	58	6.97	2.57	7.22
	2	34	6.36	2.63	
	3	32	9.03	2.90	
	4	46	6.93	2.53	
	5	50	7.00	2.90	
	6	42	7.48	2.65	
III (Cognitive)	1	53	5.62	2.52	6.45
	2	39	6.92	3.54	
	3	25	6.88	2.47	
	4	36	6.50	2.95	
	5	43	7.79	2.87	
	6	46	5.50	1.92	
IV (Control)	1	25	5.40	2.00	5.69
	2	24	6.17	2.12	
	3	25	5.20	2.22	
	4	22	7.00	2.74	
	5	28	4.96	1.84	

TABLE 4A

LANGUAGE CONCEPTS TEST
Mean Scores by Schools and by Curricula

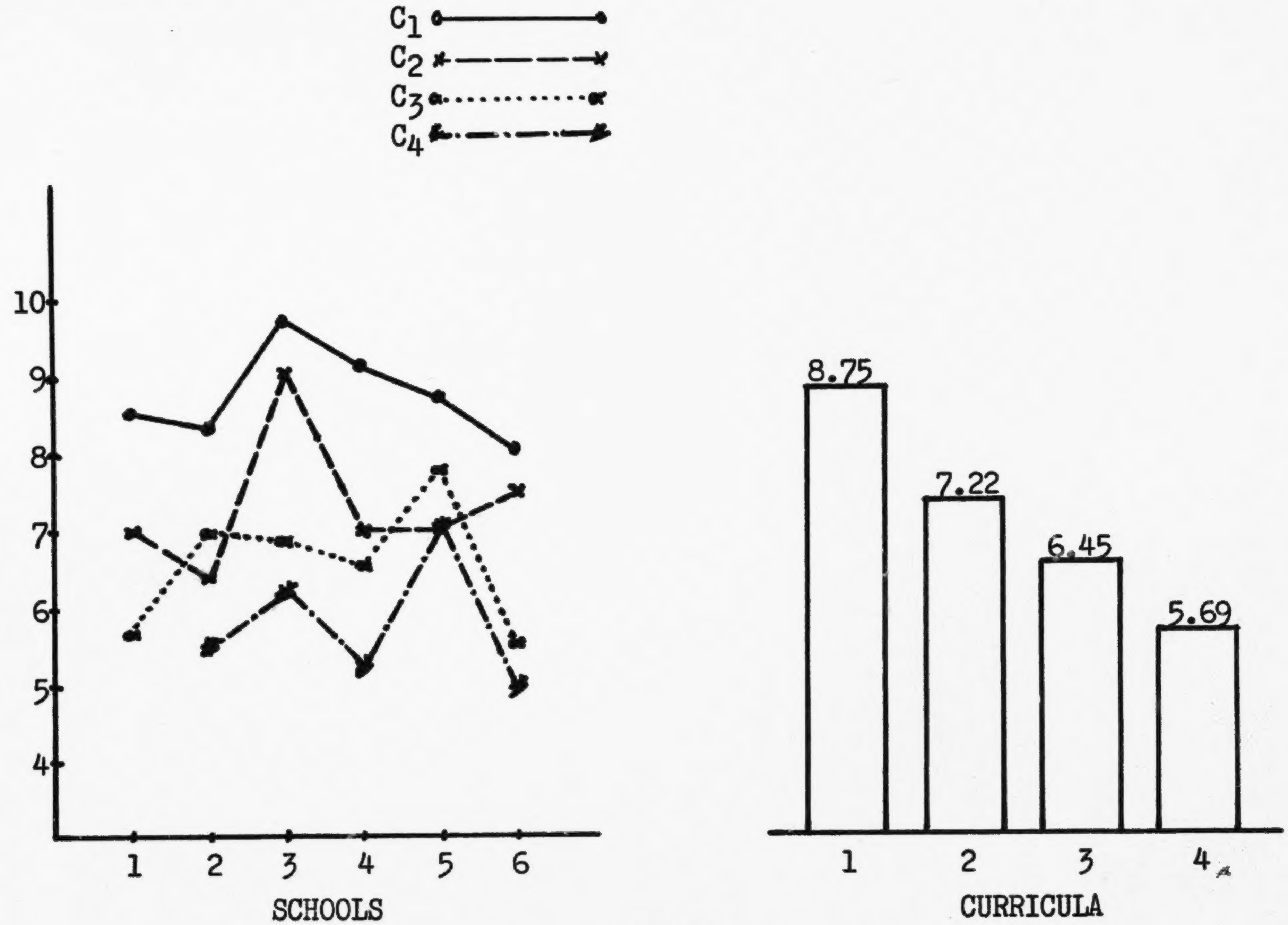


TABLE 4B

TABLE 4C

Sources of Variation	Degrees of Freedom	Sums of Squares	Mean Squares	F-ratio
Curricula	3	583.55	194.52	13.03*
Schools	5	195.22	39.04	5.38*
Interaction	14	209.05	14.93	2.06
Error	837	6067.76	7.25	

Analysis of Variance with Language Concepts Test as criterion

Weighted Means in Descending Order:

I (8.75) II (7.22) III (6.45) IV (5.69)

Inference #1: SINCE THE INTERACTION IS NOT SIGNIFICANT AND THE CURRICULUM FACTOR IS SIGNIFICANT, AT LEAST TWO OF THE CURRICULA ARE STATISTICALLY DIFFERENT.

Thus it can be concluded that the students in Curriculum I scored significantly higher than those in Curriculum IV.

Inference #2: SINCE THE SCHOOLS FACTOR IS SIGNIFICANT, THERE ARE SIGNIFICANT DIFFERENCES BETWEEN SCHOOLS.

(IE) The Combined Objective Test Battery

Curriculum	School	Number of Subjects	Group Means	Standard Deviations of Group Means	Weighted Means of Curricula
I (Tri-Component)	1	49	59.08	10.23	63.51
	2	43	66.09	15.51	
	3	33	73.15	14.76	
	4	38	64.82	11.80	
	5	39	69.69	13.54	
	6	30	46.77	19.57	
II (Thematic Literature-Centered)	1	58	58.67	8.37	58.43
	2	34	54.21	13.54	
	3	32	63.16	12.50	
	4	46	58.17	11.69	
	5	50	62.80	11.50	
	6	42	52.98	12.65	
III (Cognitive)	1	53	58.47	10.70	59.95
	2	39	65.13	15.83	
	3	25	59.20	11.61	
	4	36	62.11	14.13	
	5	43	65.67	16.68	
	6	46	50.63	7.56	
IV (Control)	1	25	56.08	9.07	57.21
	2	24	59.12	10.58	
	3	25	56.64	9.88	
	4	22	65.14	11.81	
	5	28	50.86	6.97	

TABLE 5A

TOTAL BATTERY SCORE
Mean Scores by Schools and by Curricula

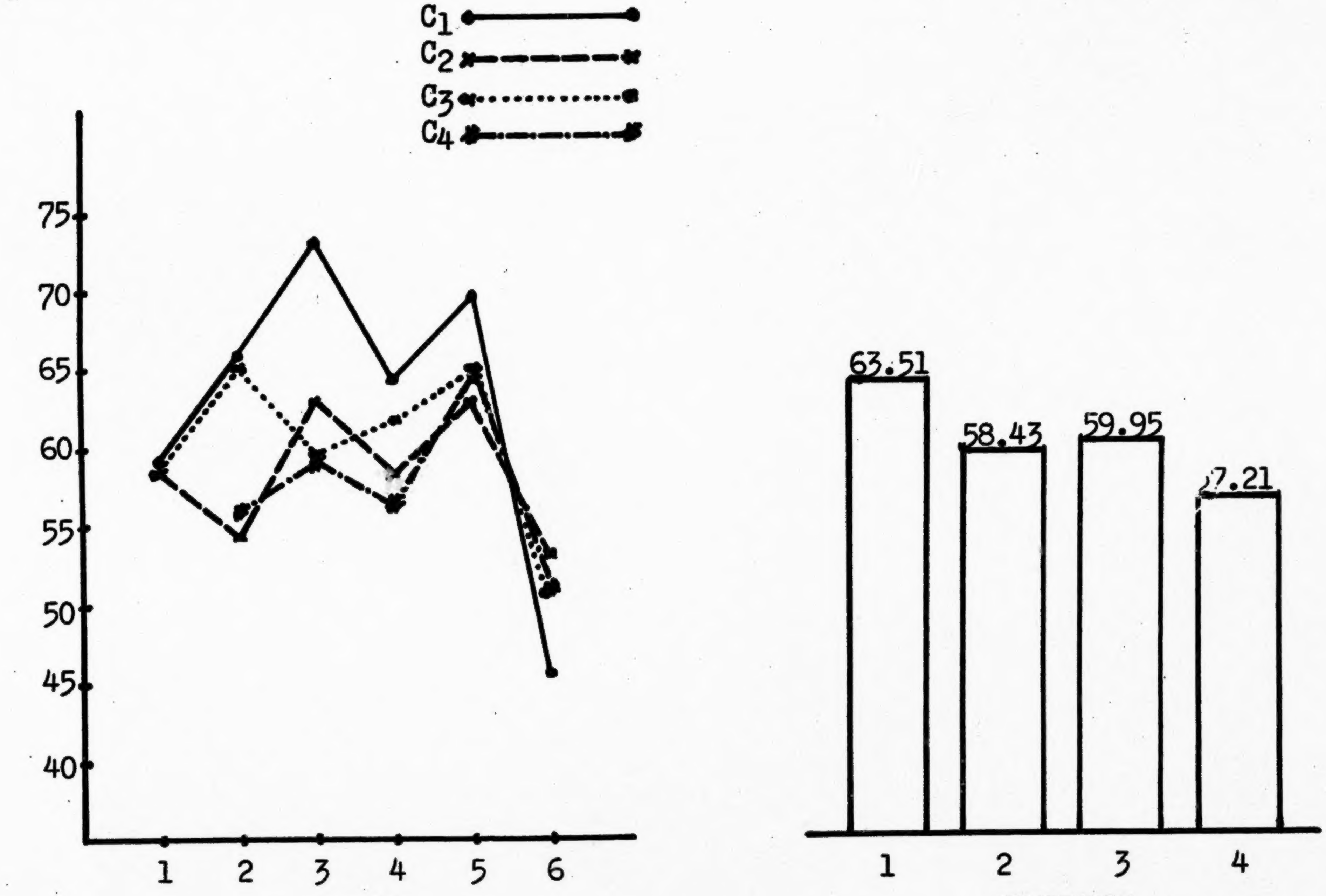


TABLE 5B

TABLE 5C

Sources of Variation	Degrees of Freedom	Sums of Squares	Mean Squares	F-ratio
Curricula	3	2931.36	977.12	1.96
Schools	5	19405.01	3881.00	24.87*
Interaction	14	6975.63	498.26	3.20*
Error	837	130476.59	155.89	

Analysis of Variance with Combined Objective Test Battery as criterion

Weighted Means in Descending Order:

I (63.51) III (59.95) II (58.43) IV (57.21)

Inference #1: SINCE THE INTERACTION IS SIGNIFICANT AND THE CURRICULUM FACTOR IS NOT SIGNIFICANT, ON THE AVERAGE THERE ARE NO STATISTICAL DIFFERENCES BETWEEN CURRICULA. (THIS MAY NOT BE TRUE IN SPECIFIC SCHOOLS)

Inference #2: SINCE THE SCHOOLS FACTOR IS SIGNIFICANT, THERE ARE SIGNIFICANT DIFFERENCES BETWEEN SCHOOLS.

(IF) The Sentence Combining Test (Words Per T-Unit)

Curriculum	School	Number of Subjects	Group Means	Standards Deviations of Group Means	Weighted Means of Curricula
I (Tri-Component)	1	8	11.76	3.52	10.12
	2	8	10.35	1.37	
	3	8	11.33	1.92	
	4	8	10.00	1.32	
	5	8	10.03	1.32	
	6	8	7.24	2.38	
II (Thematic Literature-Centered)	1	8	11.06	1.59	9.77
	2	8	9.47	2.01	
	3	8	9.80	.74	
	4	8	8.92	1.00	
	5	8	11.64	2.54	
	6	8	7.75	1.23	
III (Cognitive)	1	8	9.90	1.96	9.95
	2	8	11.30	4.05	
	3	8	10.22	2.24	
	4	8	9.84	2.64	
	5	8	10.69	2.48	
	6	8	7.74	1.60	
IV (Control)	1	8	9.90	1.69	9.19
	2	8	9.32	1.95	
	3	8	8.11	1.91	
	4	8	10.76	2.45	
	5	8	7.86	1.86	

TABLE 6A

WORDS / T-UNIT
Mean Scores by Schools and by Curricula

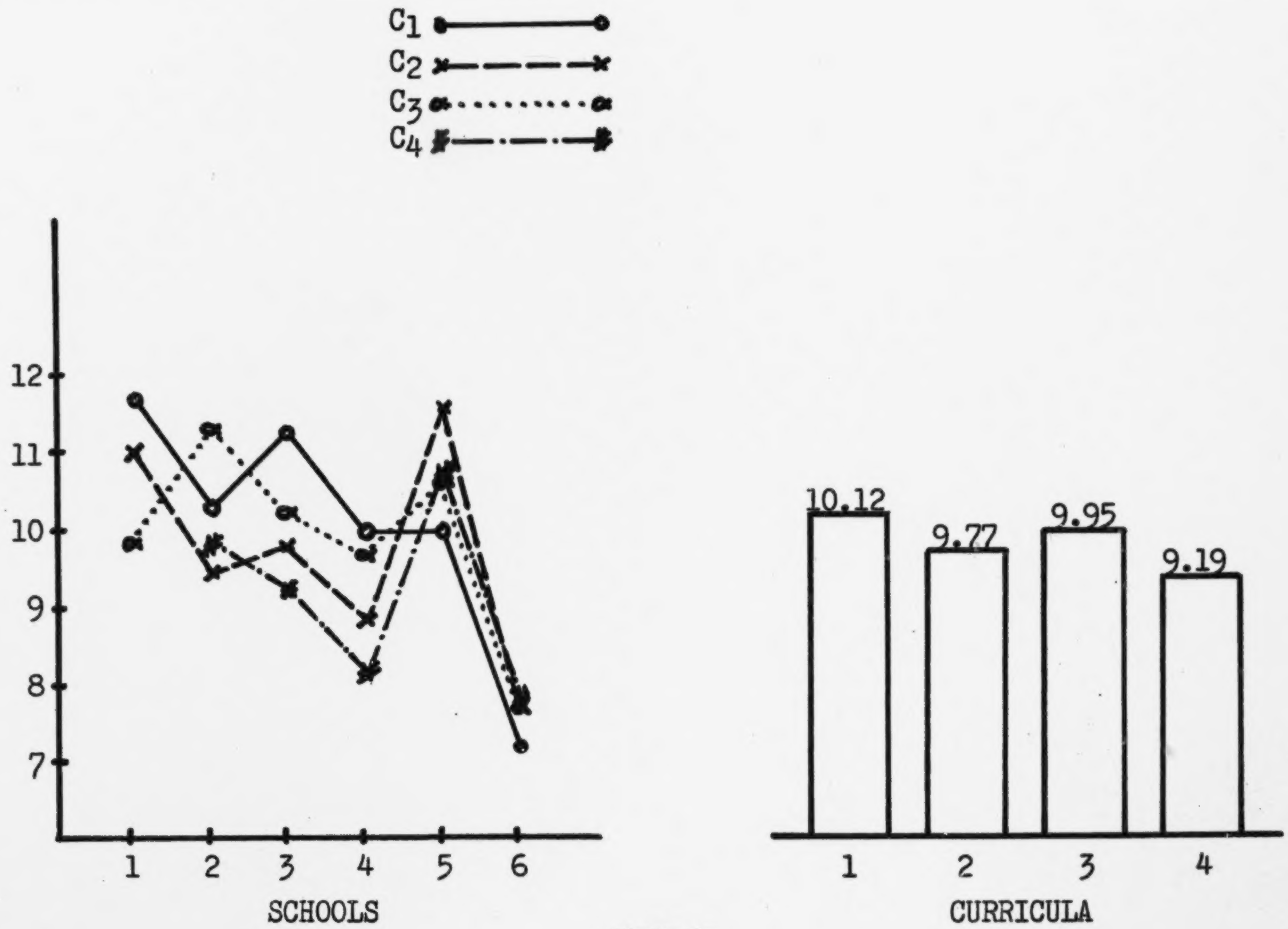


TABLE 6B

TABLE 6C

Sources of Variation	Degrees of Freedom	Sums of Squares	Mean Squares	F-ratio
Curricula	3	2.88	.96	.21
Schools	5	195.54	39.11	8.38*
Interaction	14	64.89	4.64	1.00
Error	161	746.43	4.64	

Analysis of Variance with Sentence Combining Test
(Words Per T-Unit) as criterion

Weighted Means in Descending Order:

I (10.12)   III (9.95)   II (9.77)   IV (9.19)

Inference #1: SINCE INTERACTION IS NOT SIGNIFICANT AND THE CURRICULUM FACTOR IS NOT SIGNIFICANT, THERE ARE NO STATISTICAL DIFFERENCES BETWEEN THE CURRICULA.

Inference #2: SINCE THE SCHOOLS FACTOR IS SIGNIFICANT, THERE ARE SIGNIFICANT DIFFERENCES BETWEEN SCHOOLS.

(IF) The Sentence Combining Test (Words Per Clause)

Curriculum	School	Number of Subjects	Group Means	Standard Deviations of Group Means	Weighted Means of Curricula
I (Tri-Component)	1	8	8.40	1.66	7.70
	2	8	7.94	.61	
	3	8	8.67	.79	
	4	8	7.23	.84	
	5	8	7.80	.78	
	6	8	6.16	1.53	
II (Thematic Literature-Centered)	1	8	7.70	.75	7.53
	2	8	7.30	1.48	
	3	8	7.94	.64	
	4	8	7.54	.78	
	5	8	8.19	1.96	
	6	8	6.52	.70	
III (Cognitive)	1	8	7.72	.85	7.57
	2	8	8.27	2.00	
	3	8	7.46	.83	
	4	8	7.76	1.43	
	5	8	7.82	1.70	
	6	8	6.41	.94	
IV (Control)	1	8	7.60	.67	7.17
	2	8	7.45	1.31	
	3	8	7.04	1.22	
	4	8	7.46	.85	
	5	8	6.31	.49	

TABLE 7A

WORDS PER CLAUSE
Mean Scores by Schools and by Curricula

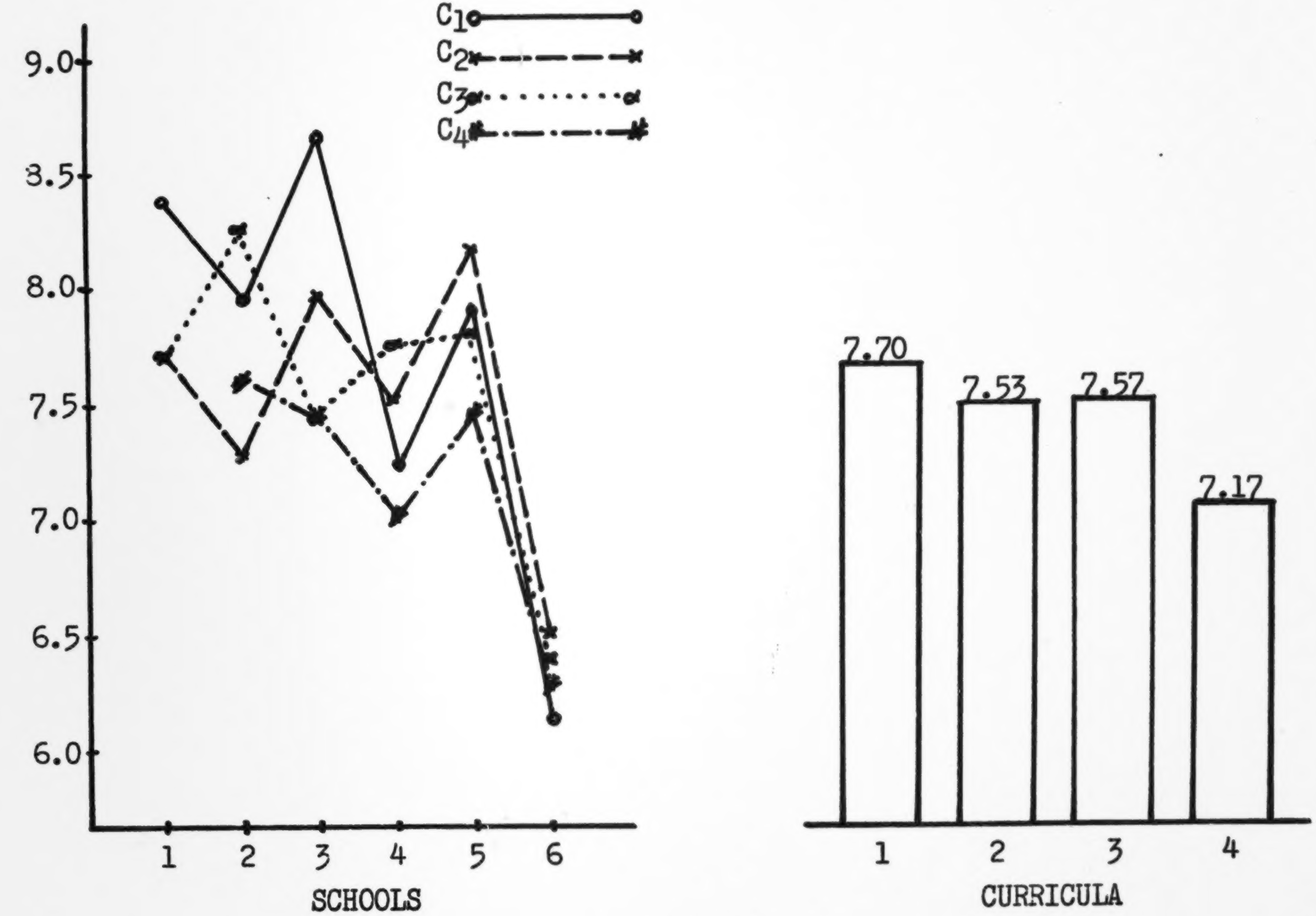


TABLE 7B

TABLE 7C

Sources of Variation	Degrees of Freedom	Sums of Squares	Mean Squares	F-ratio
Curricula	3	.74	.25	.23
Schools	5	52.40	10.48	7.65*
Interaction	14	15.26	1.09	.80
Error	161	219.25	1.36	

Analysis of Variance with Sentence Combining Test
(Words Per Clause) as criterion

Weighted Means in Descending Order:

I (7.70) III (7.57) II (7.53) IV (7.17)

Inference #1: SINCE INTERACTION IS NOT SIGNIFICANT AND THE CURRICULUM FACTOR IS NOT SIGNIFICANT, THERE ARE NO STATISTICAL DIFFERENCES BETWEEN THE CURRICULA.

Inference #2: SINCE THE SCHOOLS FACTOR IS SIGNIFICANT, THERE ARE SIGNIFICANT DIFFERENCES BETWEEN SCHOOLS.

(IF) The Sentence Combining Test (Clauses Per T-Unit)

Curriculum	School	Number of Subjects	Group Means	Standard Deviations of Group Means	Weighted Means of Curricula
I (Tri-Component)	1	8	1.39	.30	1.31
	2	8	1.31	.17	
	3	8	1.30	.18	
	4	8	1.38	.21	
	5	8	1.29	.12	
	6	8	1.16	.18	
II (Thematic Literature-Centered)	1	8	1.44	.23	1.30
	2	8	1.30	.15	
	3	8	1.24	.13	
	4	8	1.19	.10	
	5	8	1.43	.20	
	6	8	1.18	.12	
III (Cognitive)	1	8	1.28	.18	1.30
	2	8	1.35	.19	
	3	8	1.36	.21	
	4	8	1.25	.14	
	5	8	1.38	.27	
	6	8	1.20	.14	
IV (Control)	1	8	1.30	.18	1.27
	2	8	1.25	.11	
	3	8	1.14	.10	
	4	8	1.44	.26	
	5	8	1.24	.27	

TABLE 8A

CLAUSE RATIO
Mean Scores by Schools and by Curricula

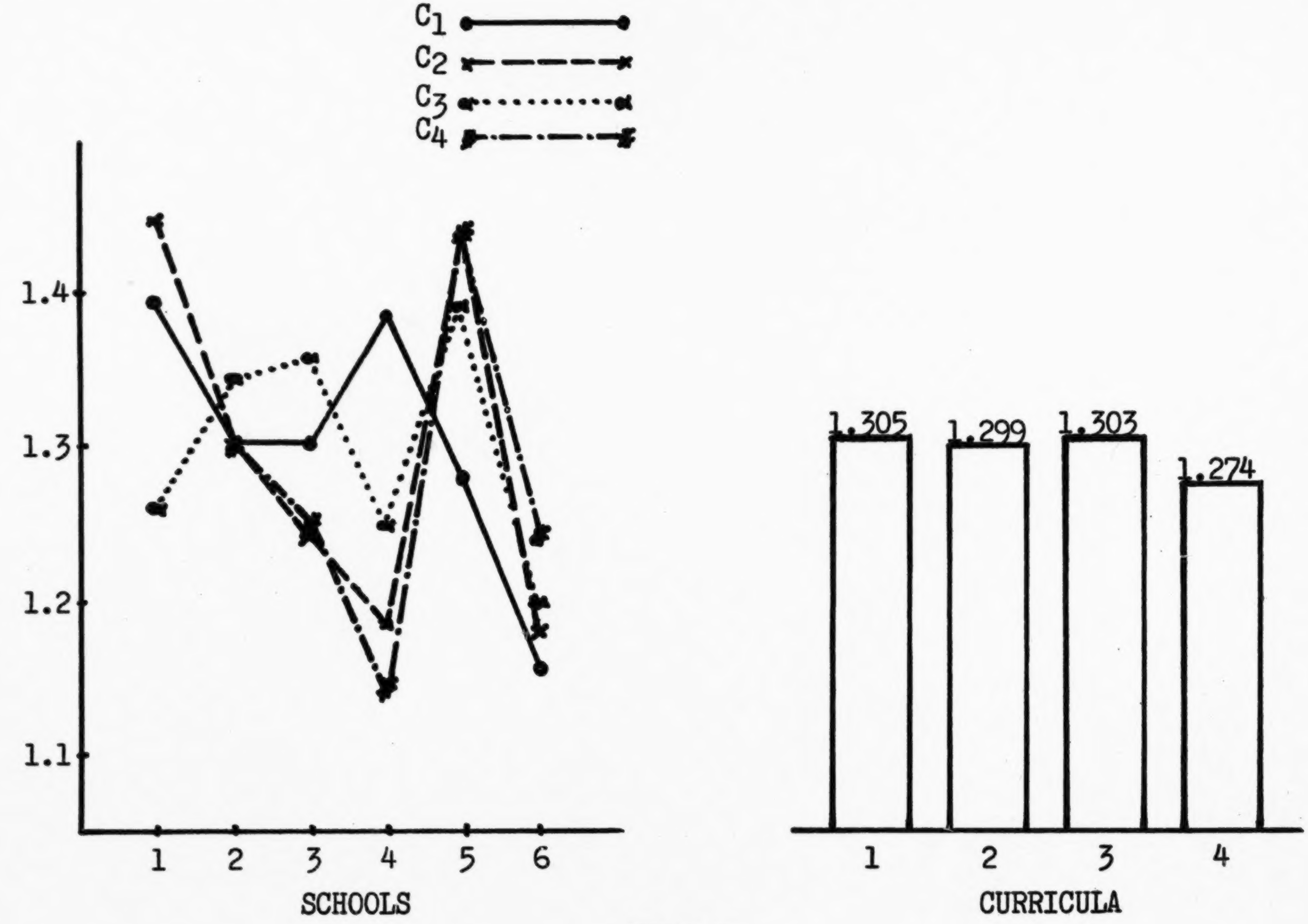


TABLE 8B

TABLE 8C

Sources of Variation	Degrees of Freedom	Sums of Squares	Mean Squares	F-ratio
Curricula	3	.00	.00	.01
Schools	5	.66	.13	3.65*
Interaction	14	.60	.04	1.00
Error	161	5.71	.04	

Analysis of Variance with Sentence Combining Test (Clauses Per T-Unit) as criterion

Weighted Means in Descending Order:

I (1.305) III (1.303) II (1.299) IV (1.274)

Inference #1: SINCE INTERACTION IS NOT SIGNIFICANT AND THE CURRICULUM FACTOR IS NOT SIGNIFICANT, THERE ARE NO STATISTICAL DIFFERENCES BETWEEN THE CURRICULA.

Inference #2: SINCE THE SCHOOLS FACTOR IS SIGNIFICANT, THERE ARE SIGNIFICANT DIFFERENCES BETWEEN SCHOOLS.

(IG) Controlled Writing Problem #1

Curriculum	School	Number of Subjects	Group Means	Standard Deviations of Group Means	Weighted Means of Curricula
I (Tri-Component)	1	8	67.12	12.67	62.52
	2	8	56.25	11.61	
	3	8	69.00	21.56	
	4	8	57.50	14.25	
	5	8	67.88	14.84	
	6	8	57.38	22.98	
II (Thematic Literature-Centered)	1	8	69.00	16.09	63.28
	2	8	63.12	18.18	
	3	8	75.38	13.69	
	4	8	61.62	17.54	
	5	8	63.25	9.91	
	6	8	47.38	20.00	
III (Cognitive)	1	8	62.38	14.22	62.12
	2	8	70.88	18.07	
	3	8	67.50	18.66	
	4	8	55.25	20.58	
	5	8	59.88	11.83	
	6	8	57.00	16.56	
IV (Control)	1	8	60.88	11.54	52.87
	2	8	48.00	15.31	
	3	8	44.12	15.91	
	4	8	65.25	18.58	
	5	8	46.12	5.84	

TABLE 9A

WRITING PROBLEM NO. 1
Mean Scores by Schools and by Curricula

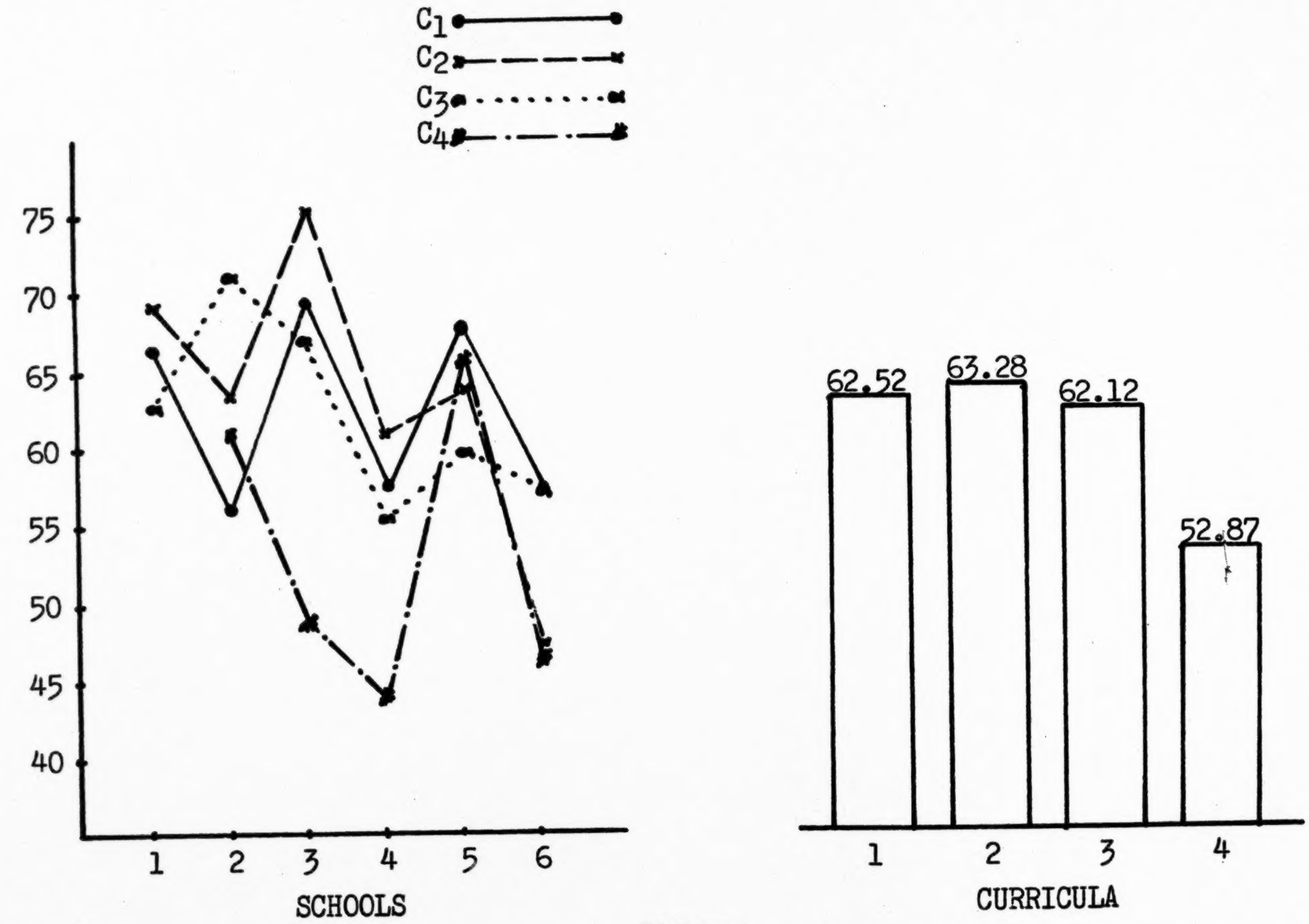


TABLE 9B

TABLE 9C

Sources of Variation	Degrees of Freedom	Sums of Squares	Mean Squares	F-ratio
Curricula	3	32.76	10.92	.03
Schools	5	4537.96	907.59	3.45*
Interaction	14	4424.30	316.02	1.21
Error	161	42060.38	261.24	

Analysis of Variance with Controlled Writing Problem #1 as criterion

Weighted Means in Descending Order:

II (63.28) I (62.52) III (62.12) IV (52.87)

Inference #1: SINCE THE INTERACTION IS NOT SIGNIFICANT AND THE CURRICULUM FACTOR IS NOT SIGNIFICANT, THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN THE CURRICULA.

Inference #2: SINCE THE SCHOOLS FACTOR IS SIGNIFICANT, THERE ARE SIGNIFICANT DIFFERENCES BETWEEN SCHOOLS.

(IH) Controlled Writing Problem #2

Curriculum	School	Number of Subjects	Group Means	Standard Deviations of Group Means	Weighted Means of Curricula
I (Tri-Component)	1	8	60.12	9.91	55.48
	2	8	56.38	17.29	
	3	8	62.38	15.95	
	4	8	52.25	11.36	
	5	8	51.25	8.70	
	6	8	50.50	20.93	
II (Thematic Literature-Centered)	1	8	69.50	9.29	60.79
	2	8	61.38	8.40	
	3	8	69.50	9.09	
	4	8	58.62	13.65	
	5	8	54.75	9.85	
	6	8	51.00	13.75	
III (Cognitive)	1	8	64.38	18.40	62.60
	2	8	66.25	12.91	
	3	8	71.62	15.38	
	4	8	50.00	11.82	
	5	8	67.12	12.67	
	6	8	56.00	8.89	
IV (Control)	1	8	64.38	18.06	50.85
	2	8	50.62	14.24	
	3	8	49.25	9.87	
	4	8	52.88	15.89	
	5	8	37.12	7.62	

TABLE 10A

WRITING PROBLEM NO. 2

Mean Scores by Schools and by Curricula

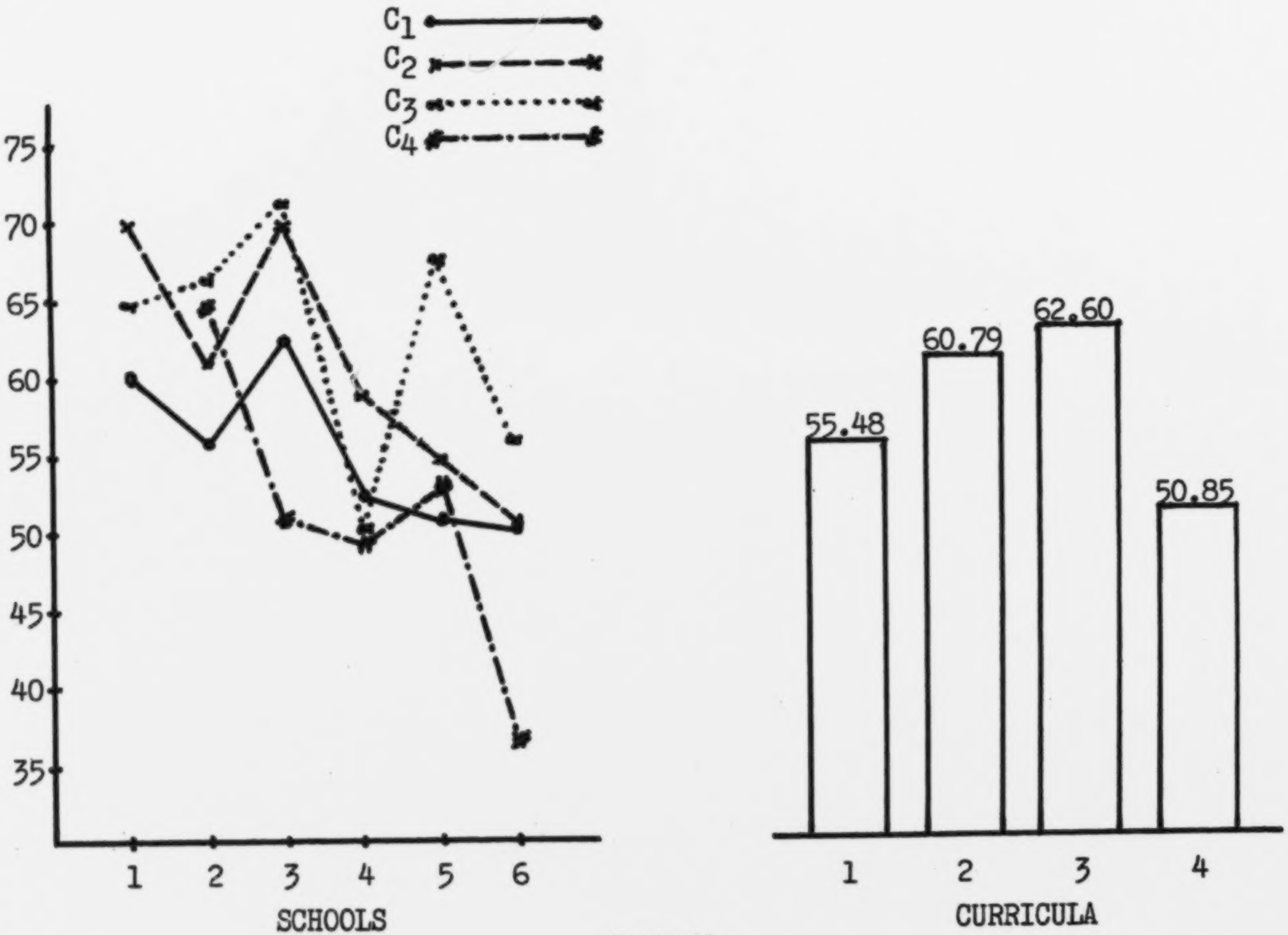


TABLE 10B

TABLE 10C

Sources of Variation	Degrees of Freedom	Sums of Squares	Mean Squares	F-ratio
Curricula	3	1316.38	438.79	2.01
Schools	5	5035.48	1007.10	5.66*
Interaction	14	3069.45	219.25	1.24
Error	161	28447.50	176.69	

Analysis of Variance with Controlled Writing Problem #2 as criterion

Weighted Means in Descending Order:

III (62.60) II (60.79) I (55.48) IV (50.85)

Inference #1: SINCE THE INTERACTION IS NOT SIGNIFICANT AND THE CURRICULUM FACTOR IS NOT SIGNIFICANT, THERE IS NO SIGNIFICANT DIFFERENCE BETWEEN THE CURRICULA.

Inference #2: SINCE THE SCHOOLS FACTOR IS SIGNIFICANT, THERE ARE SIGNIFICANT DIFFERENCES BETWEEN SCHOOLS.

SUMMARY OF THE ANALYSIS OF VARIANCE ON THE OBJECTIVE TEST BATTERY, THE SENTENCE COMBINING TEST, AND WRITING PROBLEMS #1 AND #2

Of the analysis of variance performed on the results of the objective and sentence combining tests, it can generally be said that while differences may not have been statistically significant, there is reason to suspect that Curriculum I (Tri-Component) was considerably more effective than Curriculum IV (Control) and marginally superior to Curriculum III (Cognitive) and Curriculum II (Thematic Literature-Centered). The analysis of the Combined Objective Test Battery seems to bear out this contention, but more direct evidence will be brought in to focus later when a concordance test is applied to the rank order of weighted means on each instrument. It is also worth noting that on two of the four objective tests (i.e. Sentence Relationships and Language Concepts), Curriculum I students performed significantly better.

The analysis of the results of the two writing problems reveals an inconsistency in the pattern established by the objective battery. Although the differences between curricula were not significant on the writing problems, the fact that Curriculum I did not score highest on either problem might possibly imply that its strengths are best revealed by objective measures. The analysis of the results of Writing Problem #1 revealed Curriculum II scoring highest, while the analysis of the results of Writing Problem #2 showed Curriculum III highest. It should be kept in mind that the analysis of the results in both cases was based on a random sample drawn from the total population.

The Schools factor, which subsumes students and teachers, was consistently significant, even though the Interaction factor in two of the tests was able to nullify its effect on the Curriculum factor.

I. THE SEMANTIC DIFFERENTIAL (1965-67)

The Semantic Differential constitutes a measure of attitudes of students in the three experimental curricula toward their English program and their individual activities. A low score is indicative of a positive attitude. Therefore, the curriculum with the lowest weighted mean, according to each instrument, should be regarded as indicating a more positive attitude. The summary at the end of this section is intended to make this distinction clear.

(I.Ia) Semantic Differential (1965--Curriculum Complexity)

Curriculum	School	Number of Subjects	Group Means	Standard Deviations of Group Means	Weighted Means of Curricula
I (Tri-Component)	1	62	44.82	14.38	50.43
	2	64	45.98	7.65	
	3	59	55.31	9.05	
	4	67	50.52	8.03	
	5	66	54.15	9.95	
	6	57	52.07	8.59	
II (Thematic Literature-Centered)	1	62	55.03	9.10	51.88
	2	53	55.57	8.23	
	3	56	48.82	8.43	
	4	66	52.20	10.76	
	5	66	49.31	7.58	
	6	59	50.68	9.39	
III (Cognitive)	1	61	51.31	8.12	49.17
	2	60	48.05	9.97	
	3	56	38.54	8.25	
	4	63	50.29	7.23	
	5	64	55.69	6.69	
	6	55	49.98	10.81	

TABLE 11A

Semantic Differential: Complexity of English Course, 1965
Mean Scores by Schools and by Curricula

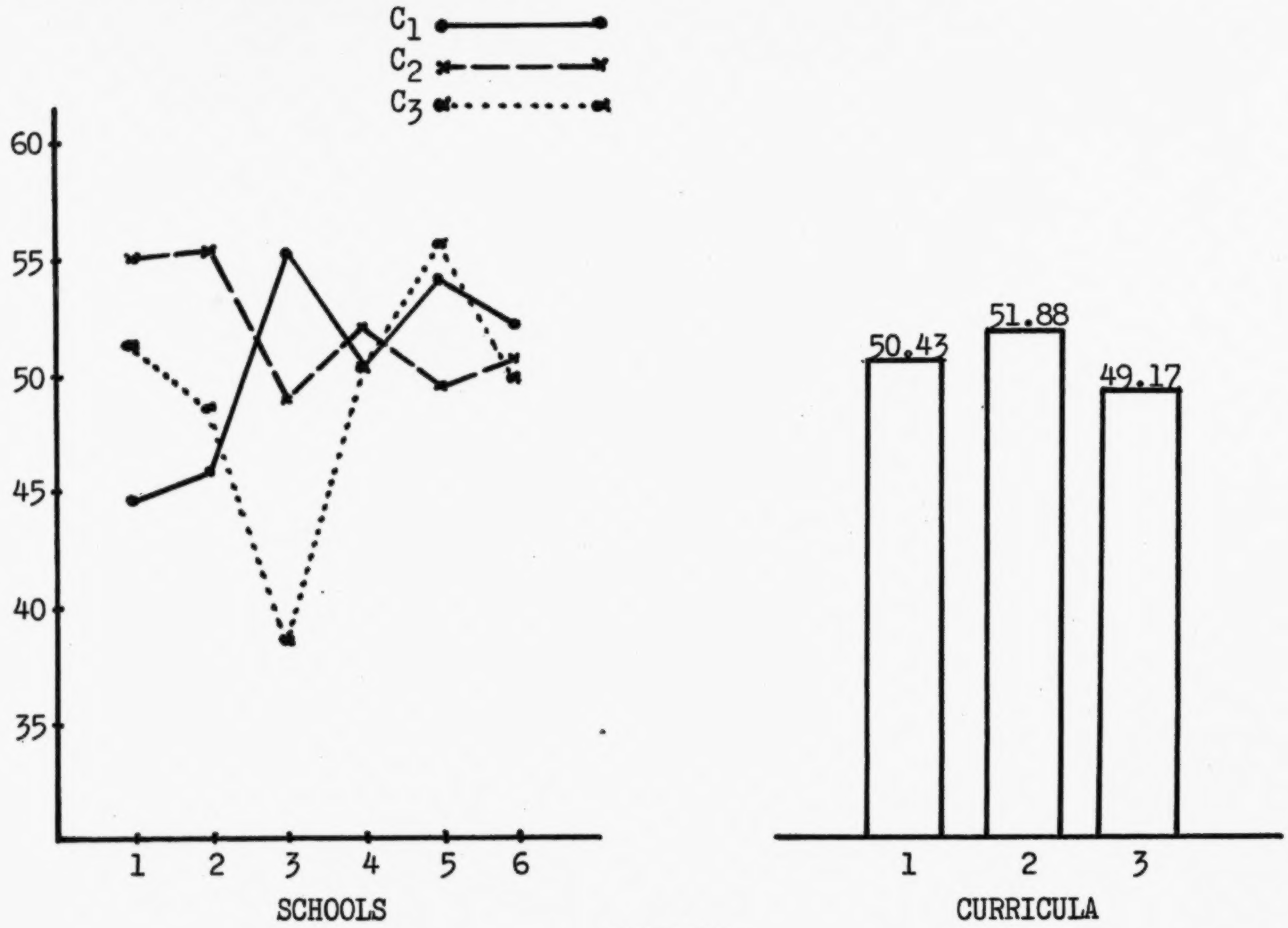


TABLE 11B

TABLE 11C

Sources of Variation	Degrees of Freedom	Sums of Squares	Mean Squares	F-ratio
Curricula	2	1571.74	785.87	.53
Schools	5	2909.58	581.92	6.90*
Interaction	10	14788.76	1478.88	17.57*
Error	1078	90713.72	84.15	

Analysis of Variance with Semantic Differential (1965--Curriculum Complexity) as criterion

Weighted Means in Descending Order:

II (51.88) I (50.43) III (49.17)

Inference #1: SINCE THE INTERACTION IS SIGNIFICANT AND THE CURRICULUM FACTOR IS NOT SIGNIFICANT, ON THE AVERAGE THERE ARE NO STATISTICAL DIFFERENCES BETWEEN CURRICULA. (THIS MAY NOT BE TRUE IN SPECIFIC SCHOOLS)

Inference #2: SINCE THE SCHOOLS FACTOR IS SIGNIFICANT, THERE ARE SIGNIFICANT DIFFERENCES BETWEEN SCHOOLS.

(I.Ib) Semantic Differential (1965--Curriculum Evaluation)

Curriculum	School	Number of Subjects	Group Means	Standard Deviations of Group Means	Weighted Means of Curricula
I (Tri-Component)	1	62	35.87	14.38	49.15
	2	64	53.11	7.74	
	3	59	54.31	7.74	
	4	67	49.84	9.37	
	5	66	49.77	7.83	
	6	57	52.25	6.94	
II (Thematic Literature-Centered)	1	62	49.02	8.79	51.72
	2	53	49.21	8.18	
	3	56	56.59	6.29	
	4	66	49.88	8.98	
	5	66	54.20	9.35	
	6	59	51.46	9.37	
III (Cognitive)	1	61	47.20	8.28	50.70
	2	60	49.63	9.77	
	3	56	55.86	7.61	
	4	63	46.40	10.82	
	5	64	53.75	8.60	
	6	55	51.89	8.34	

TABLE 12A

Semantic Differential: Evaluation of English Course, 1965
Mean Scores by Schools and by Curricula

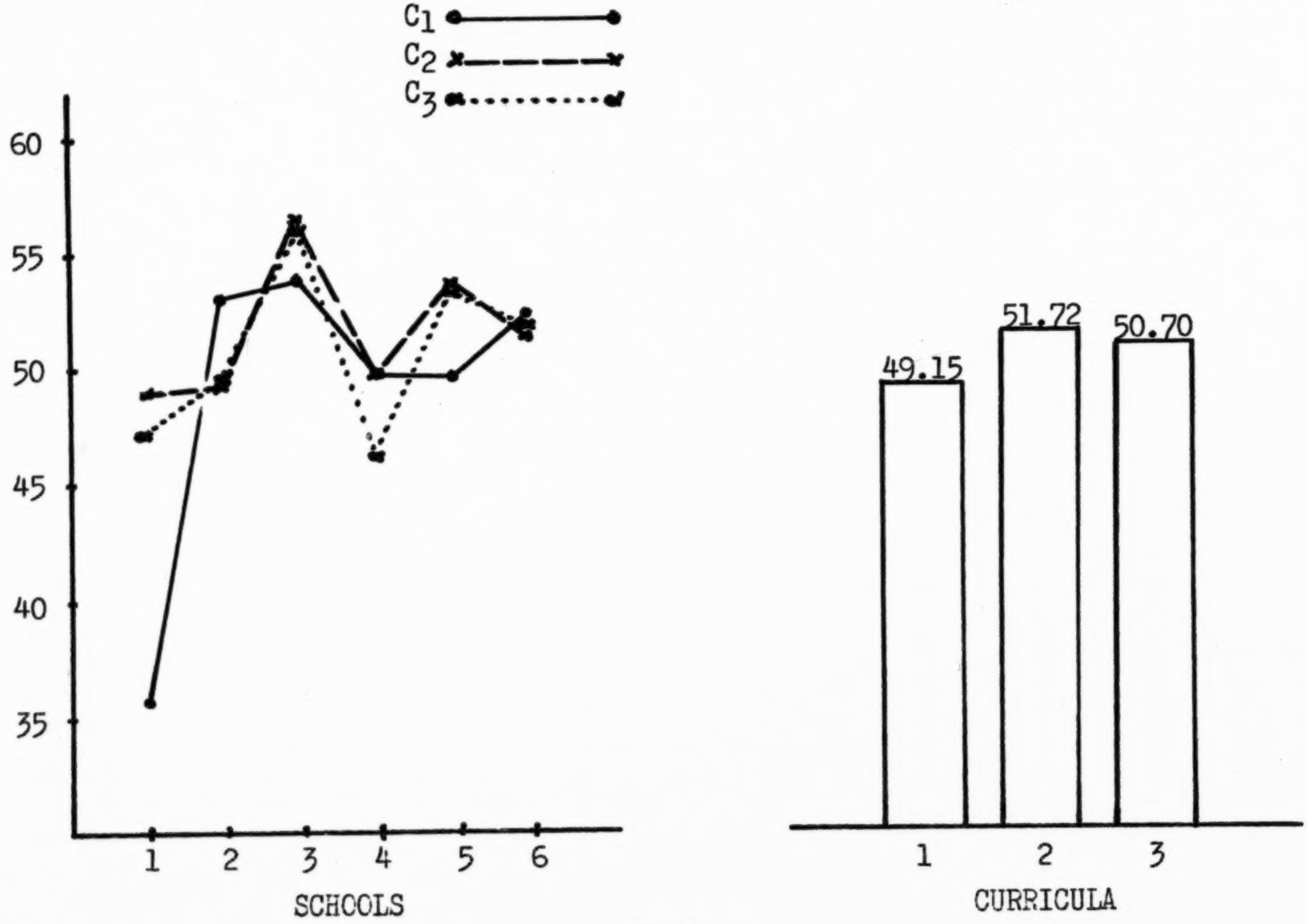


TABLE 12B

TABLE 12C

Sources of Variation	Degrees of Freedom	Sums of Squares	Mean Squares	F-ratio
Curricula	2	1207.50	603.75	.86
Schools	5	13961.83	2792.37	34.36*
Interaction	10	7028.97	702.90	8.67*
Error	1078	87371.28	81.05	

Analysis of Variance with Semantic Differential (1965--Curriculum Evaluation) as criterion

Weighted Means in Descending Order:

II (51.72) III (50.70) I (49.15)

Inference #1: SINCE THE INTERACTION IS SIGNIFICANT AND THE CURRICULUM FACTOR IS NOT SIGNIFICANT, ON THE AVERAGE THERE ARE NO STATISTICAL DIFFERENCES BETWEEN CURRICULA. (THIS MAY NOT BE TRUE IN SPECIFIC SCHOOLS)

Inference #2: SINCE THE SCHOOLS FACTOR IS SIGNIFICANT, THERE ARE SIGNIFICANT DIFFERENCES BETWEEN SCHOOLS.

(I.Ic) Semantic Differential (1965--Assignments Complexity)

Curriculum	School	Number of Subjects	Group Means	Standard Deviations of Group Means	Weighted Means of Curricula
I (Tri-Component)	1	62	44.63	13.28	49.23
	2	64	50.00	7.28	
	3	59	50.46	9.36	
	4	71	47.14	11.47	
	5	66	53.02	8.68	
	6	57	50.32	7.63	
II (Thematic Literature-Centered)	1	62	57.24	8.93	52.71
	2	53	56.15	10.41	
	3	56	50.71	8.08	
	4	66	51,23	8.92	
	5	66	51.14	8.92	
	6	59	50.14	9.48	
III (Cognitive)	1	61	51.23	8.82	49.31
	2	60	49.07	10.88	
	3	56	37.89	9.01	
	4	64	49.08	8.06	
	5	63	56.51	7.97	
	6	55	51.07	9.22	

TABLE 13A

Semantic Differential: Complexity of Assignments, 1965
Mean Scores by Schools and by Curricula

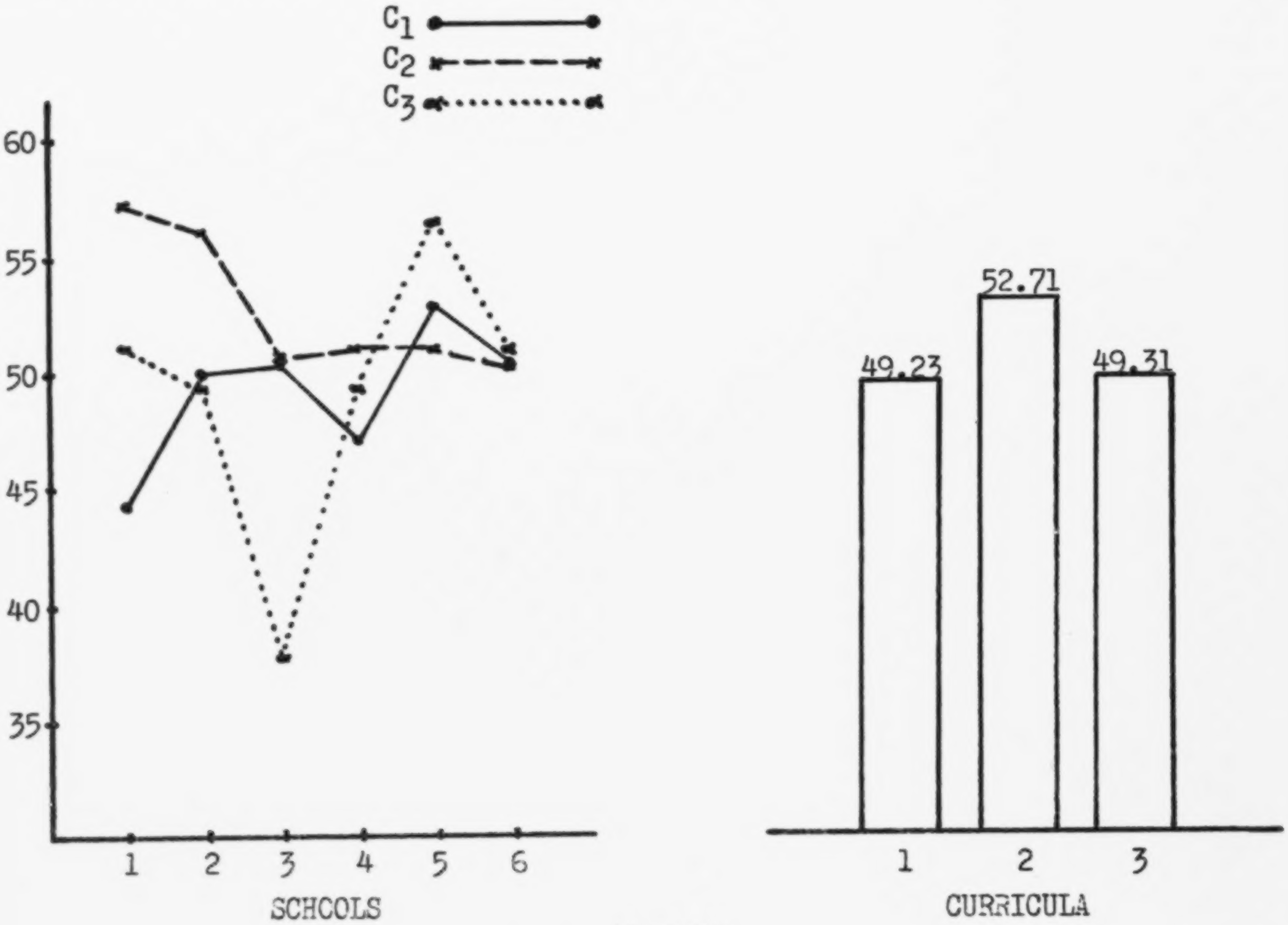


TABLE 13B

TABLE 13C

Sources of Variation	Degrees of Freedom	Sums of Squares	Mean Squares	F-ratio
Curricula	2	3072.49	1536.24	1.35
Schools	5	5438.26	1087.65	12.27*
Interaction	10	11341.25	1134.12	12.82*
Error	1082	95760.82	88.50	

Analysis of Variance with Semantic Differential (1965--Assignments Complexity) as criterion

Weighted Means in Descending Order:

II (52.71) III (49.31) I (49.23)

Inference #1: SINCE THE INTERACTION IS SIGNIFICANT AND THE CURRICULUM FACTOR IS NOT SIGNIFICANT, ON THE AVERAGE THERE ARE NO STATISTICAL DIFFERENCES BETWEEN CURRICULA. (THIS MAY NOT BE TRUE IN SPECIFIC SCHOOLS)

Inference #2: SINCE THE SCHOOLS FACTOR IS SIGNIFICANT, THERE ARE SIGNIFICANT DIFFERENCES BETWEEN SCHOOLS.

(I.Id) Semantic Differential (1965--Assignments Evaluation)

Curriculum	School	Number of Subjects	Group Means	Standard Deviations of Group Means	Weighted Means of Curricula
I (Tri-Component)	1	62	63.15	13.25	52.01
	2	64	50.70	6.93	
	3	59	47.75	8.37	
	4	71	48.20	12.06	
	5	66	54.00	9.57	
	6	57	48.23	6.40	
II (Thematic Literature-Centered)	1	62	63.15	13.25	49.68
	2	64	50.70	6.93	
	3	59	47.75	8.37	
	4	71	48.20	12.06	
	5	66	54.00	9.57	
	6	57	48.23	6.40	
III (Cognitive)	1	61	54.21	8.69	49.40
	2	60	48.78	9.51	
	3	56	43.88	6.77	
	4	64	51.34	11.28	
	5	63	48.84	7.61	
	6	55	48.76	8.29	

TABLE 14A

Semantic Differential: Evaluation of Assignments, 1965
Mean Scores by Schools and by Curricula

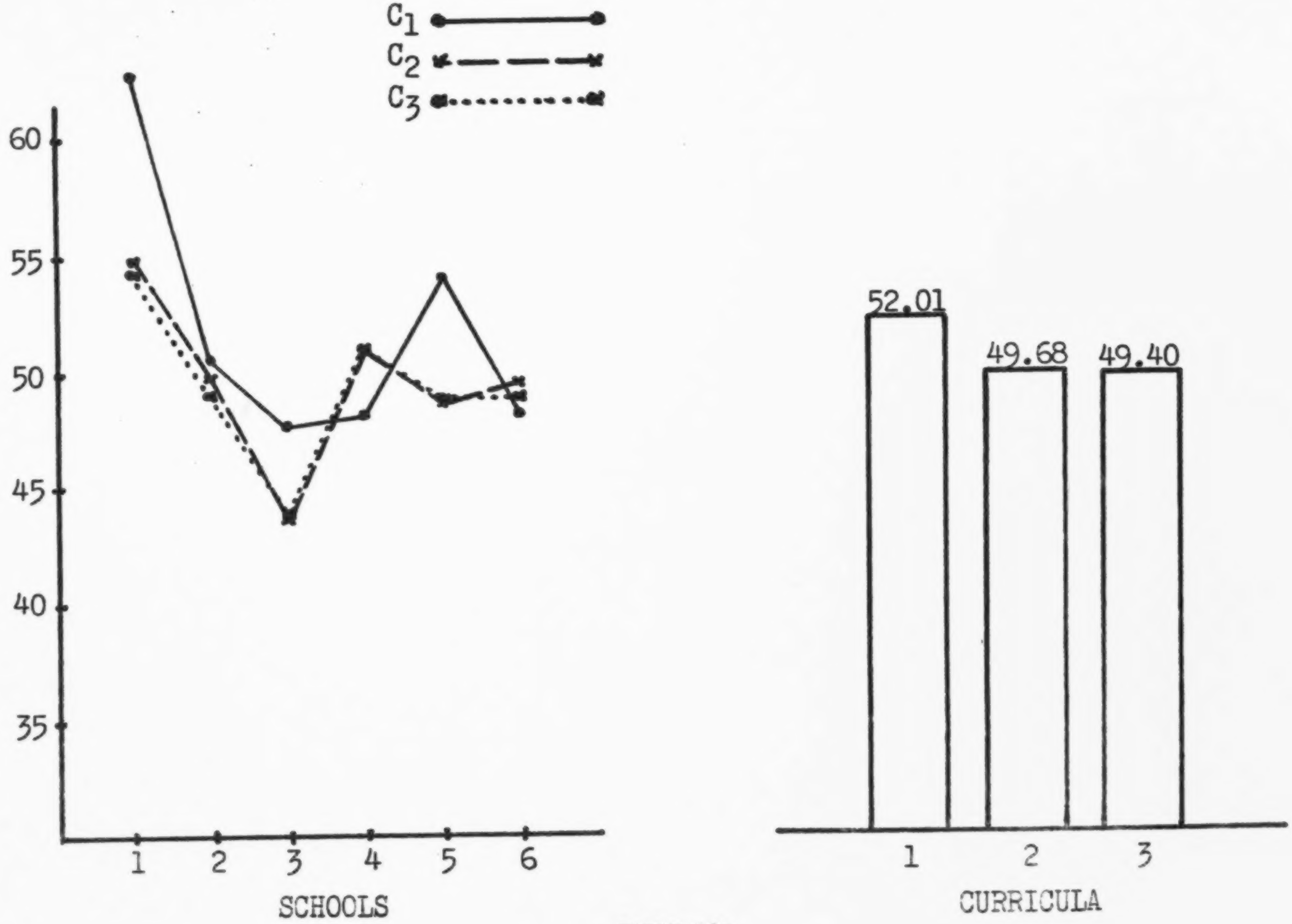


TABLE 14B

TABLE 14C

Sources of Variation	Degrees of Freedom	Sums of Squares	Mean Squares	F-ratio
Curricula	2	1630.82	815.41	2.08
Schools	5	14425.31	2885.06	32.80*
Interaction	10	3913.21	391.32	4.46*
Error	1082	94990.09	87.79	

Analysis of Variance with Semantic Differential (1965--Assignments Evaluation) as criterion

Weighted Means in Descending Order:

I (52.01) II (49.68) III (49.40)

Inference #1: SINCE THE INTERACTION IS SIGNIFICANT AND THE CURRICULUM FACTOR IS NOT SIGNIFICANT, ON THE AVERAGE THERE ARE NO STATISTICAL DIFFERENCES BETWEEN CURRICULA. (THIS MAY NOT BE TRUE IN SPECIFIC SCHOOLS)

Inference #2: SINCE THE SCHOOLS FACTOR IS SIGNIFICANT, THERE ARE SIGNIFICANT DIFFERENCES BETWEEN SCHOOLS.

(I.Ia) Semantic Differential (1966--Curriculum Complexity)

Curriculum	School	Number of Subjects	Group Means	Standard Deviations of Group Means	Weighted Means of Curricula
I (Tri-Component)	1	61	45.25	29.59	45.63
	2	55	52.36	28.08	
	3	47	52.55	30.82	
	4	58	41.03	30.19	
	5	61	40.33	27.81	
	6	50	44.00	27.85	
II (Thematic Literature-Centered)	1	58	42.24	29.26	39.91
	2	43	33.02	25.40	
	3	44	41.14	27.13	
	4	61	40.98	25.93	
	5	63	41.43	28.28	
	6	52	38.85	27.34	
III (Cognitive)	1	61	48.03	26.32	46.02
	2	56	51.96	29.20	
	3	47	52.13	29.34	
	4	57	39.65	27.51	
	5	62	39.35	24.22	
	6	51	46.67	26.43	

TABLE 15A

Semantic Differential: Complexity of English Course, 1966
Mean Scores by Schools and by Curricula

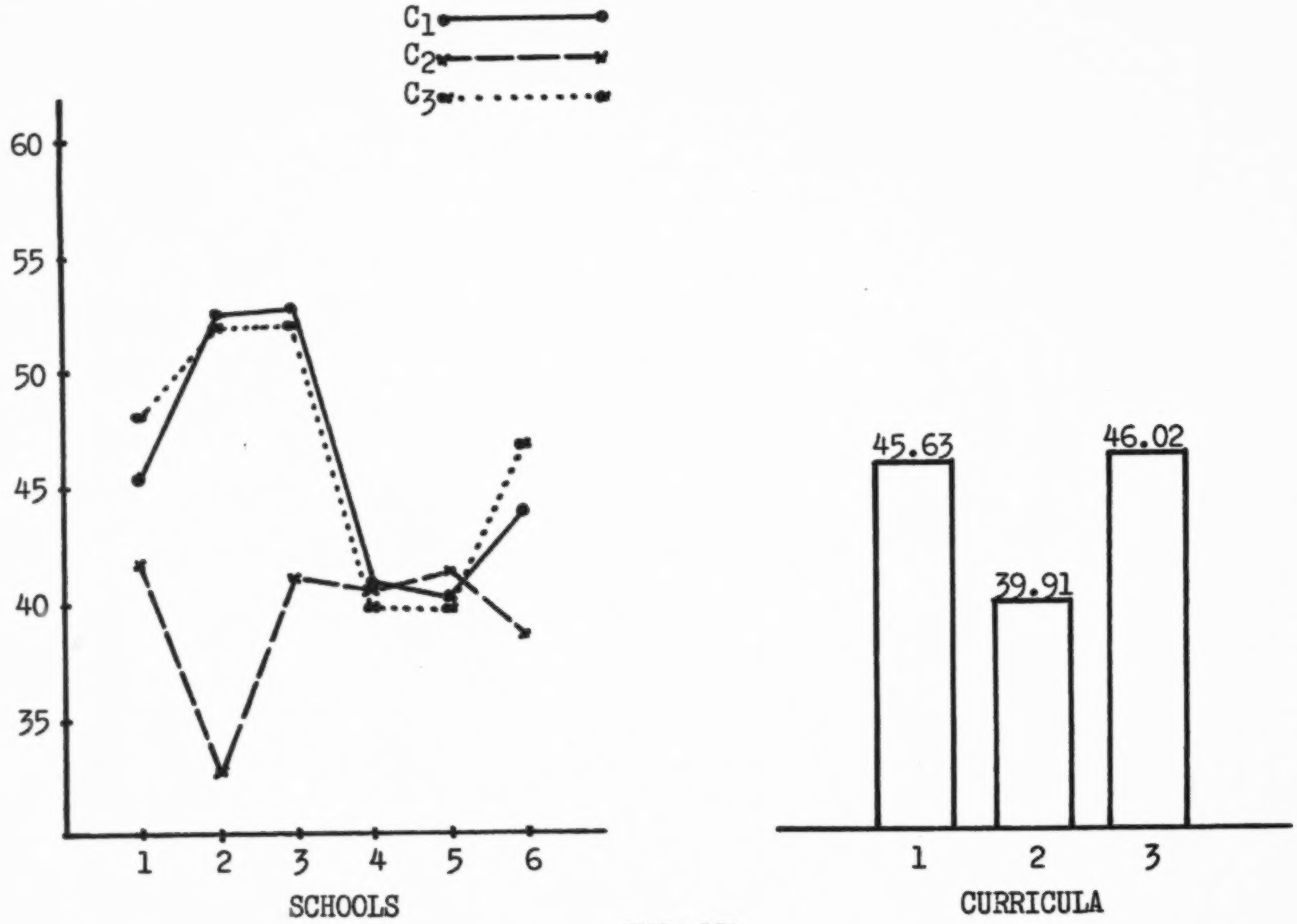


TABLE 15B

TABLE 15C

Sources of Variation	Degrees of Freedom	Sums of Squares	Mean Squares	F-ratio
Curricula	2	9009.97	4504.98	4.14*
Schools	5	8210.50	1642.10	2.11
Interaction	10	10894.16	1089.42	1.40
Error	969	751876.60	775.93	

Analysis of Variance with Semantic Differential (1966--Curriculum Complexity) as criterion

Weighted Means in Descending Order:

III (46.02) I (45.63) II (39.91)

Inference #1: SINCE THE INTERACTION IS NOT SIGNIFICANT AND THE CURRICULUM FACTOR IS SIGNIFICANT, AT LEAST TWO OF THE CURRICULA ARE DIFFERENT.

Since a low mean score is indicative of greater popularity, it is possible to conclude from the above inference that the students in Curriculum II found their course work significantly less complex than those students in Curriculum III.

Inference #2: SINCE THE SCHOOLS FACTOR IS NOT SIGNIFICANT, THERE ARE NO SIGNIFICANT DIFFERENCES BETWEEN SCHOOLS.

(I.Ib) Semantic Differential (1966--Curriculum Evaluation)

Curriculum	School	Number of Subjects	Group Means	Standard Deviations of Group Means	Weighted Means of Curricula
I (Tri-Component)	1	61	38.02	12.99	49.53
	2	55	54.69	8.24	
	3	47	54.53	8.46	
	4	58	52.81	7.20	
	5	61	44.02	10.39	
	6	50	56.10	7.05	
II (Thematic Literature-Centered)	1	58	47.93	10.96	52.57
	2	43	52.63	7.57	
	3	44	58.34	7.95	
	4	61	53.30	8.24	
	5	63	50.89	10.18	
	6	52	53.98	7.90	
III (Cognitive)	1	61	47.08	8.36	49.47
	2	56	46.32	8.16	
	3	47	51.15	7.42	
	4	57	51.28	8.63	
	5	62	47.95	8.46	
	6	51	54.08	7.03	

TABLE 16A

Semantic Differential: Evaluation of English Course, 1966
Mean Scores by Schools and by Curricula

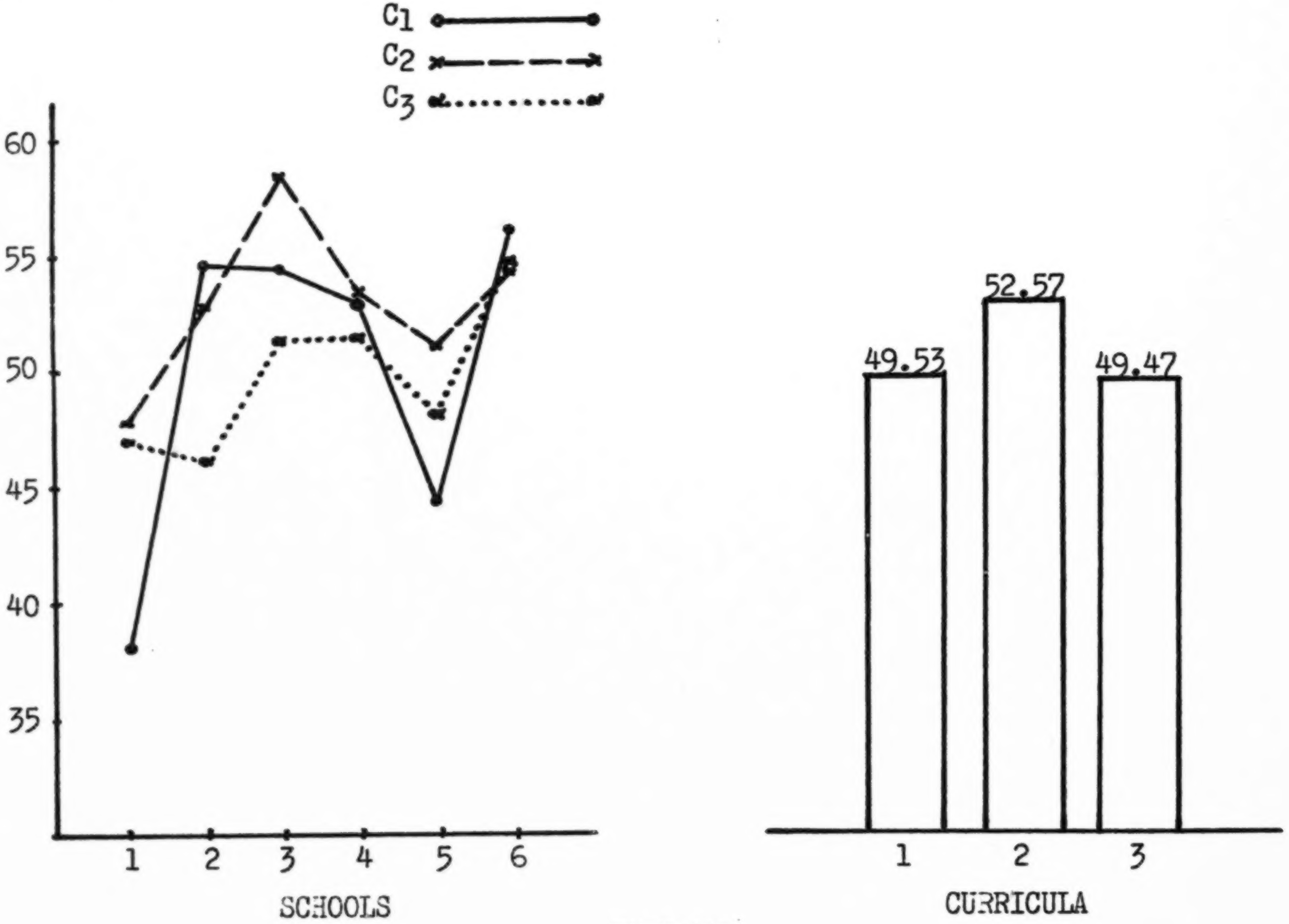


TABLE 16B

TABLE 16C

Sources of Variation	Degrees of Freedom	Sums of Squares	Mean Squares	F-ratio
Curricula	2	1949.54	974.77	1.47
Schools	5	14241.77	2848.35	36.16*
Interaction	10	6645.47	664.55	8.47*
Error	969	76015.19	78.45	

Analysis of Variance with Semantic Differential (1966--Curriculum Evaluation) as criterion

Weighted Means in Descending Order:

II (52.57) I (49.53) III (49.47)

Inference #1: SINCE THE INTERACTION IS SIGNIFICANT AND THE CURRICULUM FACTOR IS NOT SIGNIFICANT, ON THE AVERAGE THERE ARE NO STATISTICAL DIFFERENCES BETWEEN CURRICULA. (THIS MAY NOT BE TRUE IN SPECIFIC SCHOOLS)

Inference #2: SINCE THE SCHOOLS FACTOR IS SIGNIFICANT, THERE ARE SIGNIFICANT DIFFERENCES BETWEEN SCHOOLS.

(I.Ic) Semantic Differential (1966--Assignments Complexity)

Curriculum	School	Number of Subjects	Group Means	Standard Deviations of Group Means	Weighted Means of Curricula
I (Tri-Component)	1	61	49.39	28.98	44.88
	2	55	46.00	30.59	
	3	47	37.02	26.53	
	4	58	49.48	30.63	
	5	61	46.39	29.67	
	6	50	42.00	31.30	
II (Thematic Literature-Centered)	1	58	48.62	32.25	46.73
	2	43	45.12	28.73	
	3	44	44.32	26.45	
	4	61	49.18	28.71	
	5	63	44.60	31.05	
	6	52	47.69	27.70	
III (Cognitive)	1	61	45.74	28.55	44.49
	2	56	41.61	30.14	
	3	47	51.91	26.84	
	4	57	46.84	28.36	
	5	62	36.96	30.65	
	6	51	47.06	26.71	

TABLE 17A

Semantic Differential: Complexity of Assignments, 1966
Mean Scores by Schools and by Curricula

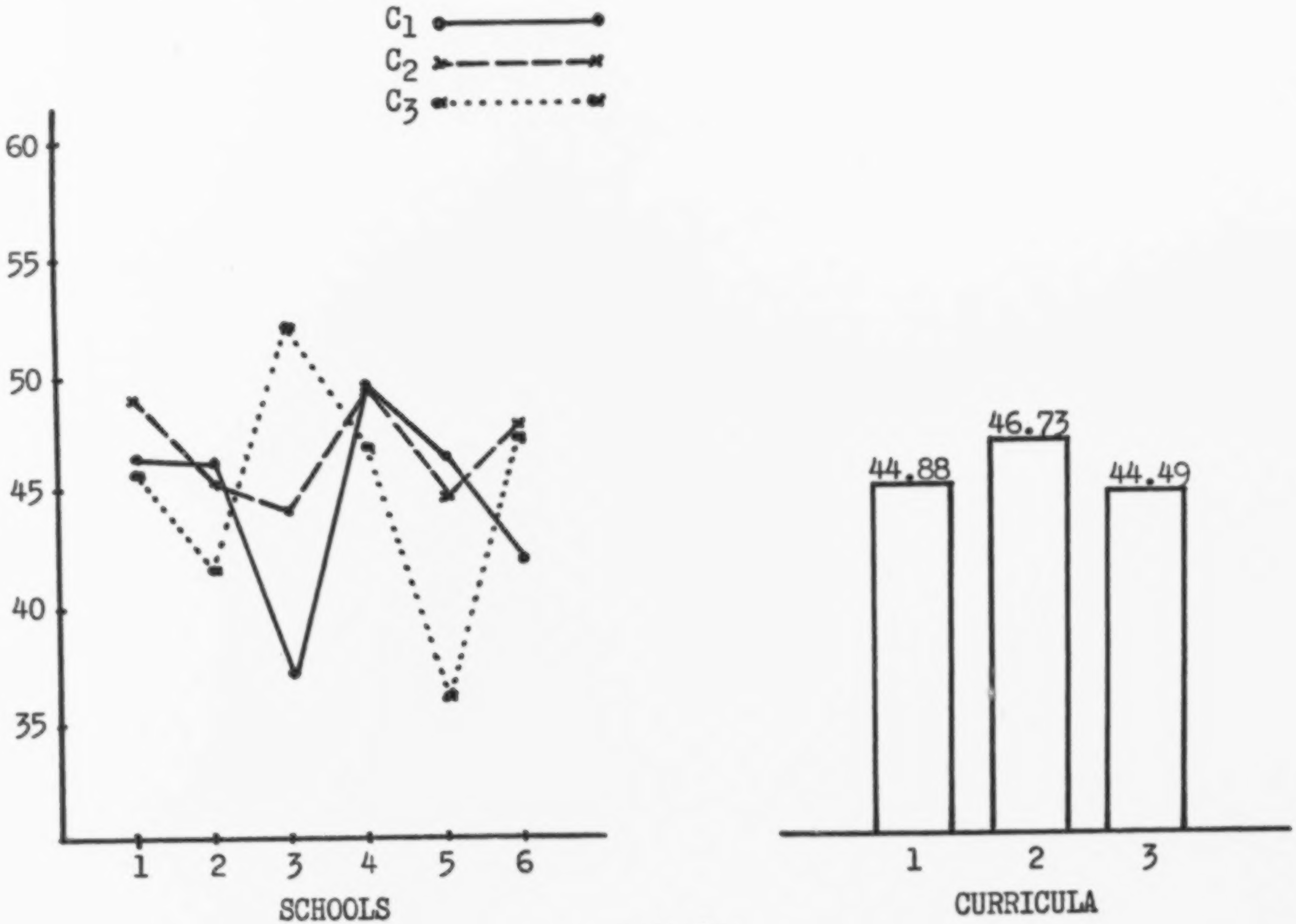


TABLE 17B

TABLE 17C

Sources of Variation	Degrees of Freedom	Sums of Squares	Mean Squares	F-ratio
Curricula	2	772.18	386.09	.38
Schools	5	4209.01	841.80	.98
Interaction	10	10265.22	1026.52	1.20
Error	969	829948.53	856.50	

Analysis of Variance with Semantic Differential (1966--Assignments Complexity) as criterion

Weighted Means in Descending Order:

II (46.73) I (44.88) III (44.49)

Inference #1: SINCE THE INTERACTION IS NOT SIGNIFICANT AND THE CURRICULUM FACTOR IS NOT SIGNIFICANT, THERE IS NO STATISTICAL DIFFERENCE BETWEEN THE CURRICULA.

Inference #2: SINCE THE SCHOOLS FACTOR IS NOT SIGNIFICANT, THERE ARE NO SIGNIFICANT DIFFERENCES BETWEEN SCHOOLS.

(I.Id) Semantic Differential (1966--Assignments Evaluation)

Curriculum	School	Number of Subjects	Group Means	Standard Deviations of Group Means	Weighted Means of Curricula
I (Tri-Component)	1	61	59.33	11.15	51.78
	2	55	51.87	8.20	
	3	47	48.47	10.14	
	4	58	48.10	8.50	
	5	61	56.92	9.53	
	6	50	43.58	7.77	
II (Thematic Literature-Centered)	1	58	53.81	11.15	48.72
	2	43	49.72	8.41	
	3	44	46.82	8.78	
	4	61	45.66	7.10	
	5	63	51.11	10.73	
	6	52	44.52	7.09	
III (Cognitive)	1	61	53.75	8.70	50.95
	2	56	51.59	9.26	
	3	47	48.32	7.35	
	4	57	50.61	9.56	
	5	62	53.35	10.38	
	6	51	46.76	8.83	

TABLE 18A

Semantic Differential: Evaluation of Assignments, 1966
Mean Scores by Schools and by Curricula

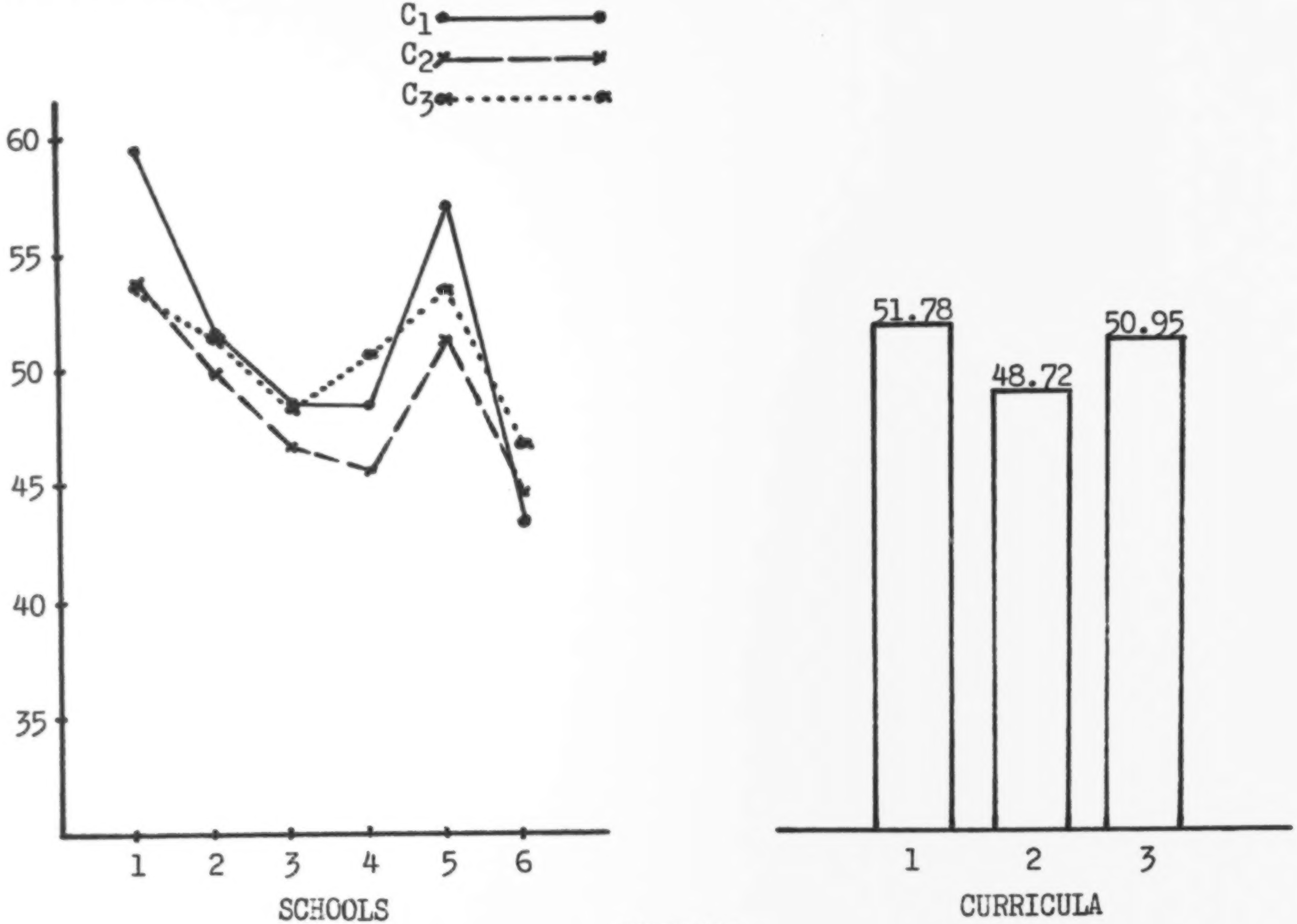


TABLE 18B

TABLE 18C

Sources of Variation	Degrees of Freedom	Sums of Squares	Mean Squares	F-ratio
Curricula	2	1343.70	671.85	3.42
Schools	5	13452.96	2690.59	31.75*
Interaction	10	1963.56	196.36	2.33*
Error	969	81778.44	84.39	

Analysis of Variance with Semantic Differential (1966--Assignments Evaluation) as criterion

Weighted Means in Descending Order:

I (51.78) III (50.95) II (48.72)

Inference #1: SINCE THE INTERACTION IS SIGNIFICANT AND THE CURRICULUM FACTOR IS NOT SIGNIFICANT, ON THE AVERAGE THERE ARE NO STATISTICAL DIFFERENCES BETWEEN CURRICULA. (THIS MAY NOT BE TRUE IN SPECIFIC SCHOOLS)

Inference #2: SINCE THE SCHOOLS FACTOR IS SIGNIFICANT, THERE ARE SIGNIFICANT DIFFERENCES BETWEEN SCHOOLS.

(I.Ia) Semantic Differential (1967--Curriculum Complexity)

Curriculum	School	Number of Subjects	Group Means	Standard Deviations of Group Means	Weighted Means of Curricula
I (Tri-Component)	1	52	47.77	11.12	50.45
	2	41	50.34	8.12	
	3	32	48.53	11.30	
	4	38	51.21	10.74	
	5	40	52.15	12.54	
	6	38	53.32	10.08	
II (Thematic Literature-Centered)	1	57	53.42	10.44	50.39
	2	38	51.84	9.69	
	3	28	50.11	8.79	
	4	46	44.50	10.08	
	5	54	52.78	9.48	
	6	41	48.46	7.90	
III (Cognitive)	1	46	51.13	10.54	50.55
	2	49	50.94	10.52	
	3	19	53.84	8.80	
	4	40	48.80	8.54	
	5	49	50.63	8.81	
	6	38	49.45	9.96	

TABLE 19A

Semantic Differential: Complexity of English Course, 1967
Mean Scores by Schools and by Curricula

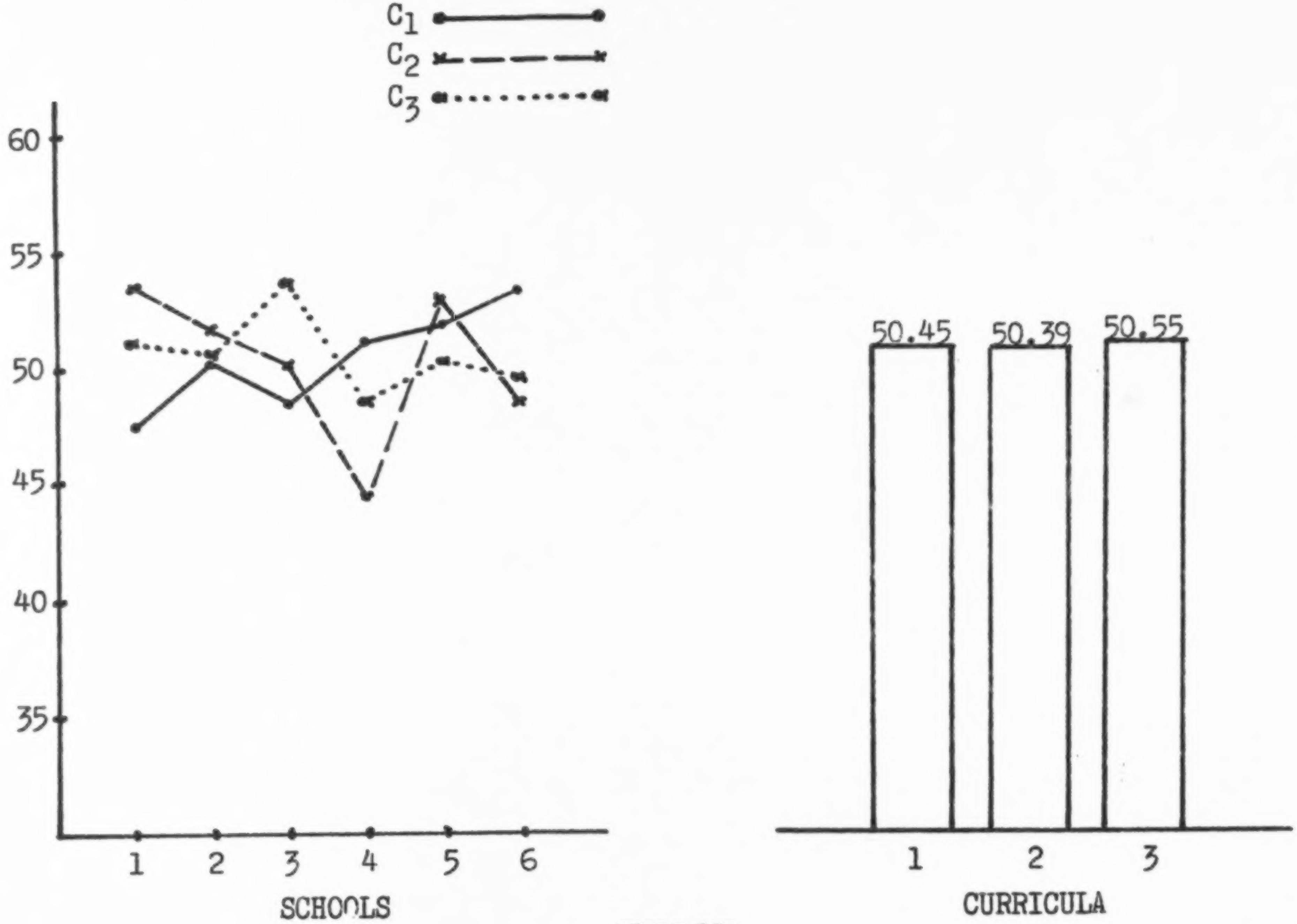


TABLE 19B

TABLE 19C

Sources of Variation	Degrees of Freedom	Sums of Squares	Mean Squares	F-ratio
Curricula	2	44.66	22.33	.08
Schools	5	983.09	196.62	1.97
Interaction	10	2870.31	287.03	2.88*
Error	728	72504.44	99.59	

Analysis of Variance with Semantic Differential
(1967--Curriculum Complexity) as criterion

Weighted Means in Descending Order:

III (50.55) I (50.45) II (50.39)

Inference #1: SINCE THE INTERACTION IS SIGNIFICANT AND THE CURRICULUM FACTOR IS NOT SIGNIFICANT, ON THE AVERAGE THERE ARE NO STATISTICAL DIFFERENCES BETWEEN CURRICULA. (THIS MAY NOT BE TRUE IN SPECIFIC SCHOOLS)

Inference #2: SINCE THE SCHOOLS FACTOR IS NOT SIGNIFICANT, THERE ARE NO SIGNIFICANT DIFFERENCES BETWEEN SCHOOLS.

(I.Ib) Semantic Differential (1967--Curriculum Evaluation)

Curriculum	School	Number of Subjects	Group Means	Standard Deviations of Group Means	Weighted Means of Curricula
I (Tri-Component)	1	52	45.81	13.34	49.58
	2	41	49.37	9.76	
	3	32	51.97	10.23	
	4	38	49.76	9.32	
	5	40	47.00	10.98	
	6	38	55.50	8.10	
II (Thematic Literature-Centered)	1	57	48.98	11.16	52.60
	2	38	53.76	8.80	
	3	28	61.35	5.84	
	4	46	52.15	8.05	
	5	54	49.57	8.99	
	6	41	55.05	6.73	
III (Cognitive)	1	46	51.61	7.86	49.74
	2	49	47.16	7.95	
	3	19	50.05	9.48	
	4	40	50.90	8 89	
	5	49	45.73	11.67	
	6	38	54.61	7.32	

TABLE 20A

Semantic Differential: Evaluation of English Course, 1967
Mean Scores by Schools and by Curricula

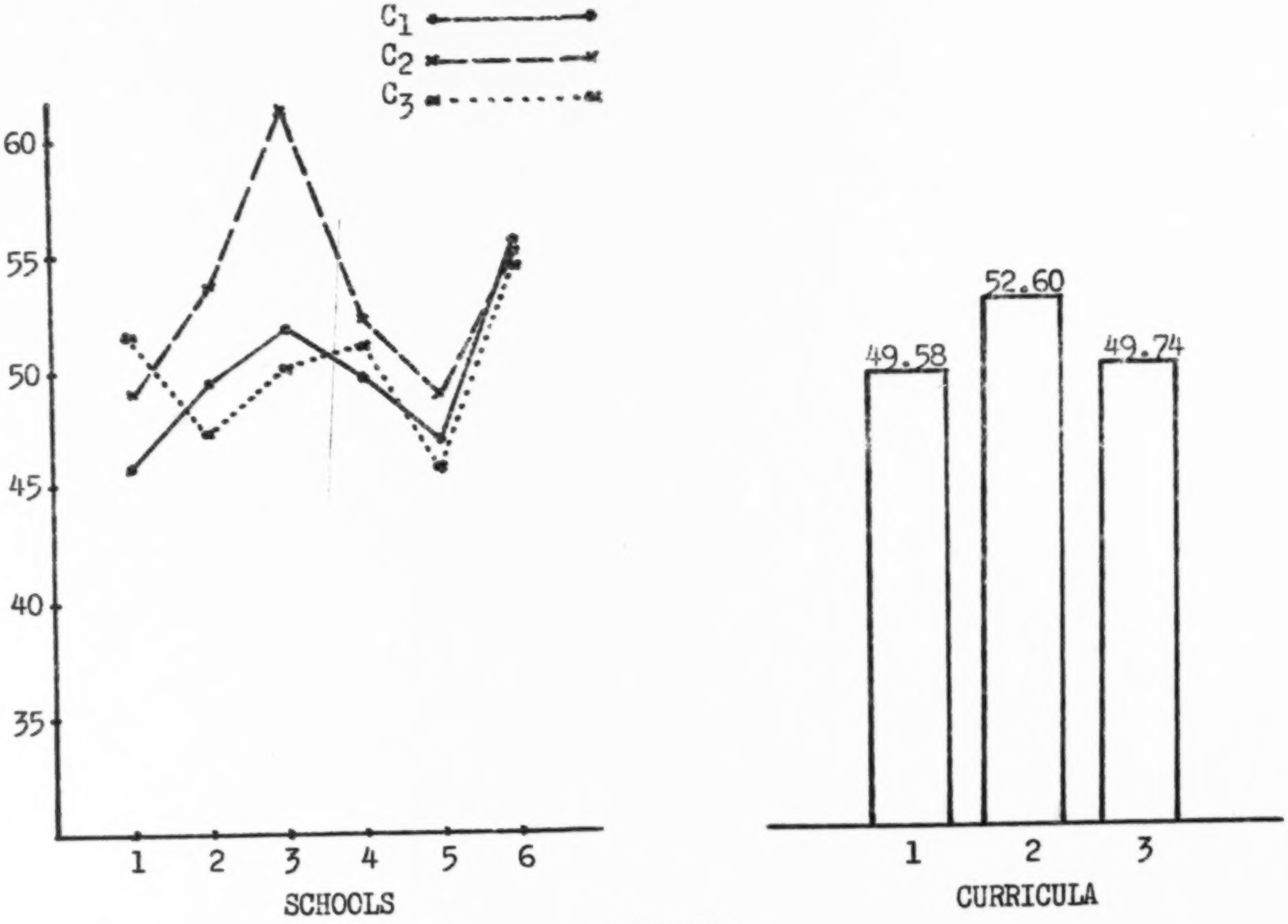


TABLE 20B

TABLE 20C

Sources of Variation	Degrees of Freedom	Sums of Squares	Mean Squares	F-ratio
Curricula	2	2001.32	1000.66	3.80
Schools	5	5384.11	1076.82	11.96*
Interaction	10	2631.57	263.16	2.93*
Error	728	65285.07	89.68	

Analysis of Variance with Semantic Differential
(1967--Curriculum Evaluation) as criterion

Weighted Means in Descending Order:

II (52.60) III (49.74) I (49.58)

Inference #1: SINCE THE INTERACTION IS SIGNIFICANT AND THE CURRICULUM FACTOR IS NOT SIGNIFICANT, ON THE AVERAGE THERE ARE NO STATISTICAL DIFFERENCES BETWEEN CURRICULA. (THIS MAY NOT BE TRUE IN SPECIFIC SCHOOLS)

Inference #2: SINCE THE SCHOOLS FACTOR IS SIGNIFICANT, THERE ARE SIGNIFICANT DIFFERENCES BETWEEN SCHOOLS.

(I.Ic) Semantic Differential (1967--Assignments Complexity)

Curriculum	School	Number of Subjects	Group Means	Standard Deviations of Group Means	Weighted Means of Curricula
I (Tri-Component)	1	54	46.13	12.03	49.01
	2	41	50.07	10.15	
	3	32	46.88	10.93	
	4	38	49.61	8.19	
	5	41	51.46	11.93	
	6	36	50.61	8.51	
II (Thematic Literature-Centered)	1	57	52.86	10.45	52.04
	2	38	54.37	11.27	
	3	28	52.07	8.99	
	4	46	47.67	10.61	
	5	53	54.85	8.05	
	6	42	50.00	7.55	
III (Cognitive)	1	48	51.17	10.22	50.21
	2	48	50.52	11.52	
	3	19	53.21	7.60	
	4	40	49.98	9.31	
	5	49	49.22	9.47	
	6	37	48.59	9.54	

TABLE 21A

Semantic Differential: Complexity of Assignments, 1967
Mean Scores by Schools and by Curricula

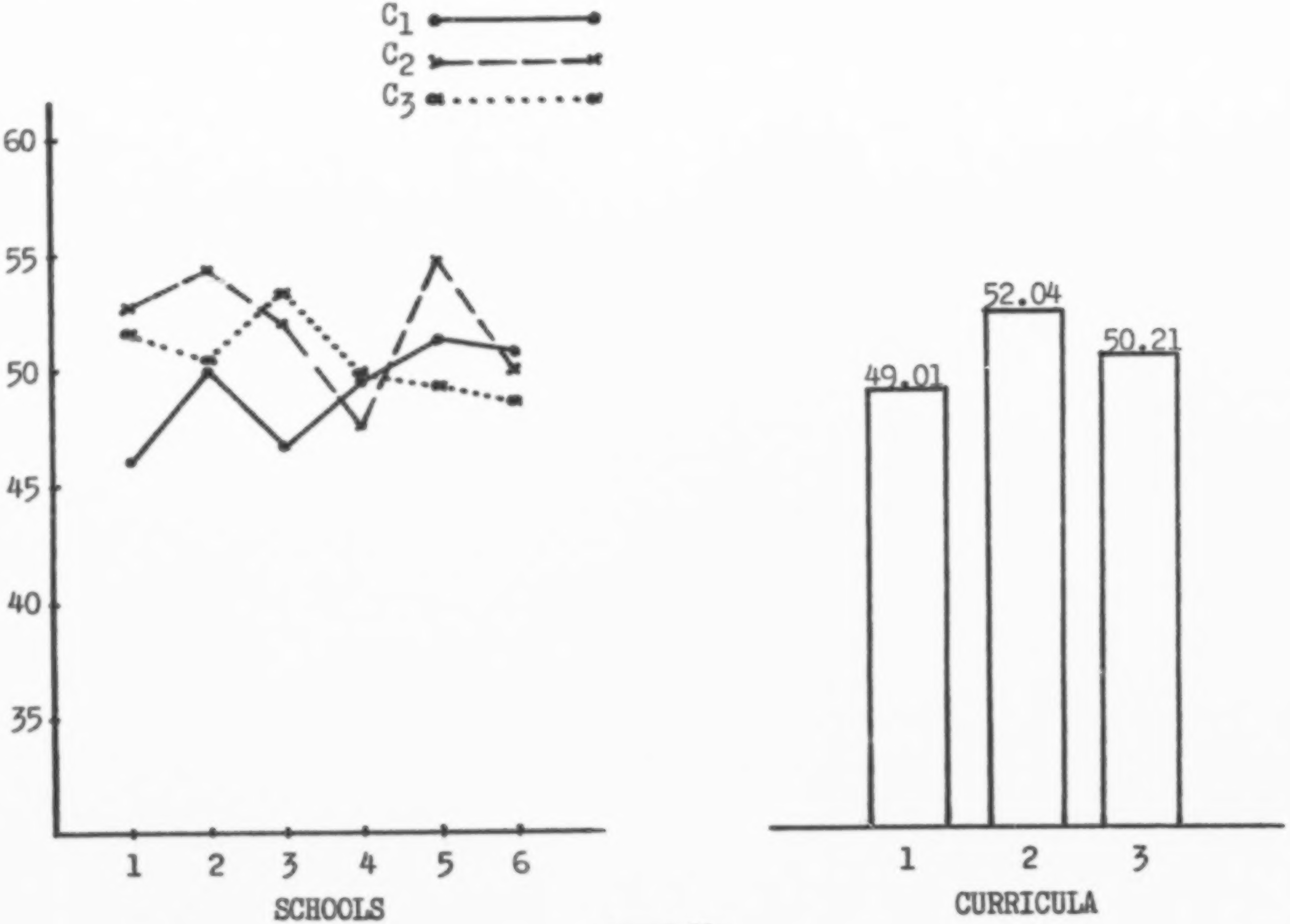


TABLE 21B

TABLE 21C

Sources of Variation	Degrees of Freedom	Sums of Squares	Mean Squares	F-ratio
Curricula	2	984.70	492.35	2.20
Schools	5	772.13	154.43	1.53
Interaction	10	2241.44	224.14	2.33*
Error	729	73136.91	100.32	

Analysis of Variance with Semantic Differential
(1967--Assignments Complexity) as criterion

Weighted Means in Descending Order:

II (52.04) III (50.21) I (49.01)

Inference #1: SINCE THE INTERACTION IS SIGNIFICANT AND THE CURRICULUM FACTOR IS NOT SIGNIFICANT, ON THE AVERAGE THERE ARE NO STATISTICAL DIFFERENCES BETWEEN CURRICULA. (THIS MAY NOT BE TRUE IN SPECIFIC SCHOOLS)

Inference #2: SINCE THE SCHOOLS FACTOR IS NOT SIGNIFICANT, THERE ARE NO SIGNIFICANT DIFFERENCES BETWEEN SCHOOLS.

(I.Id) Semantic Differential (1967--Assignments Evaluation)

Curriculum	School	Number of Subjects	Group Means	Standard Deviations of Group Means	Weighted Means of Curricula
I (Tri-Component)	1	54	44.81	11.94	49.19
	2	41	46.71	9.89	
	3	32	52.09	9.67	
	4	38	49.66	10.20	
	5	41	49.95	8.90	
	6	36	54.67	7.50	
II (Thematic Literature-Centered)	1	57	49.40	11.64	52.19
	2	38	50.87	8.73	
	3	28	61.46	7.81	
	4	46	52.76	8.30	
	5	53	47.72	10.16	
	6	42	56.00	6.32	
III (Cognitive)	1	48	50.92	9.98	50.16
	2	48	48.33	8.67	
	3	19	50.47	9.74	
	4	40	52.28	9.76	
	5	49	45.96	9.26	
	6	37	54.65	9.06	

TABLE 22A

Semantic Differential: Evaluation of Assignments, 1967
Mean Scores by Schools and by Curricula

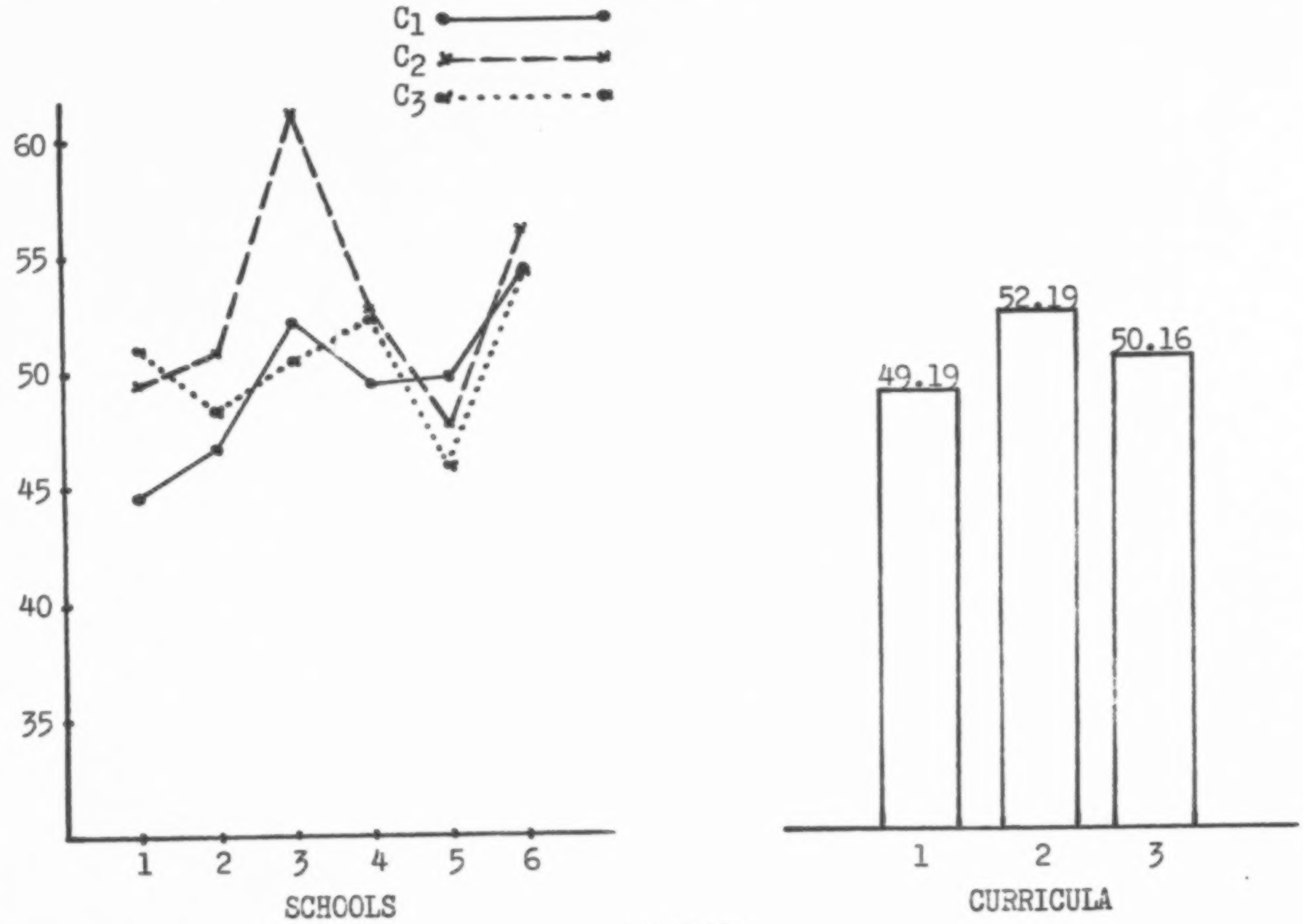


TABLE 22B

TABLE 22C

Sources of Variation	Degrees of Freedom	Sums of Squares	Mean Squares	F-ratio
Curricula	2	1529.23	764.62	2.89
Schools	5	6001.71	1200.34	13.14*
Interaction	10	2647.83	264.78	2.92*
Error	729	66213.19	90.83	

Analysis of Variance with Semantic Differential
(1967--Assignments Evaluation) as criterion

Weighted Means in Descending Order:

II (52.19) III (50.16) I (49.19)

Inference #1: SINCE THE INTERACTION IS SIGNIFICANT AND THE CURRICULUM FACTOR IS NOT SIGNIFICANT, ON THE AVERAGE THERE ARE NO STATISTICAL DIFFERENCES BETWEEN CURRICULA. (THIS MAY NOT BE TRUE IN SPECIFIC SCHOOLS)

Inference #2: SINCE THE SCHOOLS FACTOR IS SIGNIFICANT, THERE ARE SIGNIFICANT DIFFERENCES BETWEEN SCHOOLS.

SUMMARY OF THE ANALYSIS OF VARIANCE ON THE SEMANTIC DIFFERENTIAL (1965-1967)

With the exception of the curriculum complexity criterion for the 1966 results, no significant differences were found in the attitudes of students toward the experimental curricula. One may conclude from this that in terms of curriculum complexity and evaluation, and assignment complexity and evaluation, students found the three experimental approaches of equal rigor and merit. The one exception revealed that Curriculum II was significantly more popular among students than Curriculum III with regard to complexity of the program.

It can also be said that in general the Schools factor was very significant.

II. Kendall's Coefficient of Concordance

The purpose of the concordance test was explained in Chapter 2. Essentially, it judges the merits of the curricular approaches by considering the order in which the weighted means were ranked by each test instrument. There were ten different instruments (objective battery, the sentence combining test, and the two writing problems) which ranked four curricula. An additional twelve instruments (those dealing with the semantic differential criteria) ranked only the three experimental curricula. The results of the concordance test when applied to both sets of data follows:

A. The Concordance Test Applied to the Rank Order of Weighted Means of the Four Curricula on the First Ten Instruments

Since W (coefficient of concordance) was found to be significant at the .01 level (see Table IIA, p. 116), it is possible to infer that the ten test instruments which rated the merit of the four curricula served as reliable judges. If this inference is valid, we may conclude that Curriculum I was consistently superior to Curriculum IV and marginally, though not significantly, superior to Curricula III and II.

B. The Concordance Test Applied to the Rank Order of the Weighted Means of the Three Experimental Curricula on the Twelve Criteria of the Semantic Differential (1965-67)

Since W, in this case, was not found to be significant at the .01 level (see Table IIB, p. 117), it is impossible to infer that the twelve instruments which served as judges of the three experimental curricula were consistent in their evaluation. It is therefore also impossible to determine if one of the curricular approaches was significantly more popular among the students than another.

Curriculum	Test 1 Poetry	Test 2 Short Story	Test 3 Sent. Rel.	Test 4 Lang. Con.	Test 5 Comb.Obj. Battery	Test 6 Words/ T-Unit	Test 7 Words/ Clause	Test 8 Clause/ T-Unit	Test 9 Writing Prob.#1	Test 10 Writing Prob.#2	Total of Ranks
I	1	1	1	1	1	1	1	1	2	3	13
II	3	3	3	2	3	3	3	3	1	2	26
III	2	2	4	3	2	2	2	2	3	1	23
IV	4	4	2	4	4	4	4	4	4	4	38

TABLE IIA (Kendall's Coefficient of Concordance Applied to Four Curricula as Ordered by First Ten Tests)

$m=10$ (number of criteria used to judge curricula)

$n=4$ (number of curricula judged by criteria)

$W=\frac{12\Sigma d^2}{m^2\ (n^3-n)}$ where W=coefficient of concordance, Σd^2=sum of deviations of each curriculum from the total ranks

$\underline{W=.63^*}$

Curriculum	1965 Curr. Cmplx.	1965 Curr. Eval.	1965 Assn. Cmplx.	1965 Assn. Eval.	1966 Curr. Cmplx.	1966 Curr. Eval.	1966 Assn. Cmplx.	1966 Assn. Eval.	1967 Curr. Cmplx.	1967 Curr. Eval.	1967 Assn. Cmplx.	1967 Assn. Eval.	Total of Ranks
I	2	1	1	3	2	2	2	3	2	1	1	1	21
II	3	3	3	2	1	3	3	1	1	3	3	3	29
III	1	2	2	1	3	1	1	2	3	2	2	2	22

TABLE IIB (Kendall's Coefficient of Concordance Applied to Semantic Differential Criteria 1965-1967)

$m=12$ (number of criteria used to judge curricula)

$n=3$ (number of curricula judged by criteria)

$W=\frac{12\Sigma d^2}{m^2\ (n^3-n)}$ where W=coefficient of concordance, Σd^2=sum of deviations of each curriculum from the total ranks

W=.13

III. Categorizing of Free Responses to Literature

A detailed explanation of the categories used to classify the responses appears in Chapter 2, and the appendix contains copies of both the short story and the poem to which students were asked to react. Diagrams and tables on the following pages reveal the patterns of responses observed in a sample which was drawn randomly from the written reactions of the total population of students in the four curricula. Some general observations about the responses are reported below.

A. The Short Story

1. Students in Curricula I and IV were more inclined to respond with literary judgments than were students in Curricula II and III.
2. Students in Curricula II and III were more inclined to make interpretational responses than were students in Curricula I and IV.
3. Students in Curriculum IV were slightly less inclined to respond with narrational reactions than were students in the other curricula.
4. Little difference among curricula was apparent in the percentage of responses made in categories of associational response, self-involvement, prescriptive judgment, unity response, and miscellaneous response.

B. The Poem

1. Students in Curriculum I were slightly more inclined to make value judgments and literary judgments than were students in the other curricula. They made proportionately more concrete interpretations but fewer paraphrases and abstract interpretations than did students in the other curricula.
2. Students in Curriculum II were more inclined to respond with paraphrases and abstract interpretations than were students in the other curricula. They were less inclined to make literary judgments.
3. Students in Curriculum III were more inclined to make self-involvement responses than were students in the other curricula.

4. Little difference among curricula was apparent in the percentage of responses in categories of meaning-desire, general tangents, and miscellaneous responses.

TABLE 3A (1)

	CURRICULUM 1		CURRICULUM 2		CURRICULUM 3		CURRICULUM 4	
	numb. of responses	percent of responses	numb. of responses	percent of responses	numb. of responses	percent of responses	numb. of responses	percent of responses
Literary Judgment	153	38.3	60	16.0	70	19.6	90	37.2
Interpretational Response	128	32.1	171	45.6	175	49.0	71	29.3
Narrational Reaction	65	16.3	72	19.2	58	16.2	24	9.9
Associational Response	8	2.0	26	7.0	16	4.5	9	3.7
Self-Involvement	10	2.5	14	3.7	11	3.1	11	4.6
Prescriptive Judgment	9	2.3	14	3.7	10	2.8	12	5.0
Unity Response	22	5.5	6	1.6	10	2.8	9	3.7
Miscellaneous	4	1.0	12	3.2	7	2.0	16	6.6
Totals:	399	100.0	375	100.0	357	100.0	242	100.0

TABLE 3A (2)

FREE RESPONSE TO LITERATURE: SHORT STORY
Percentage of Responses by Categories

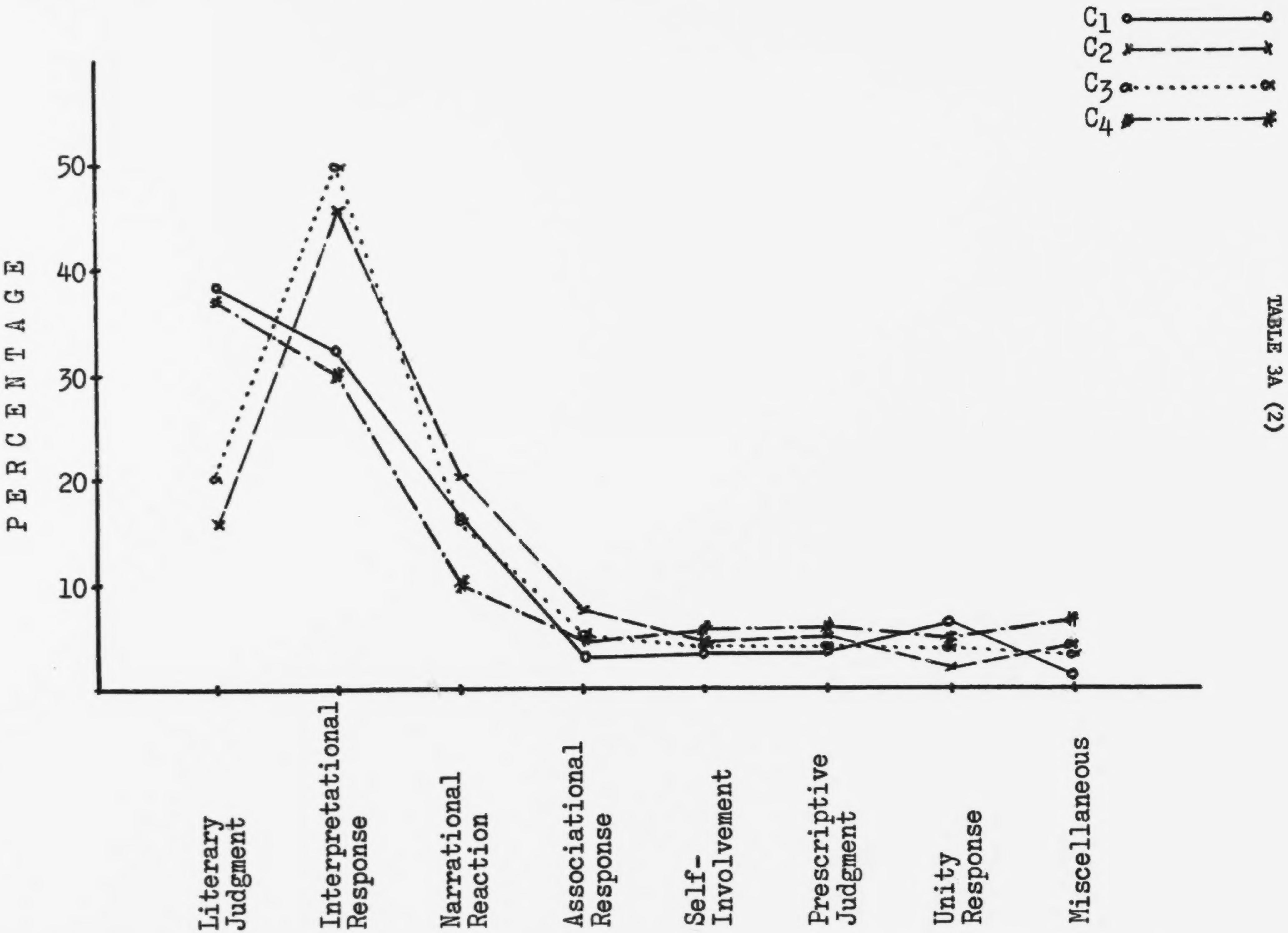


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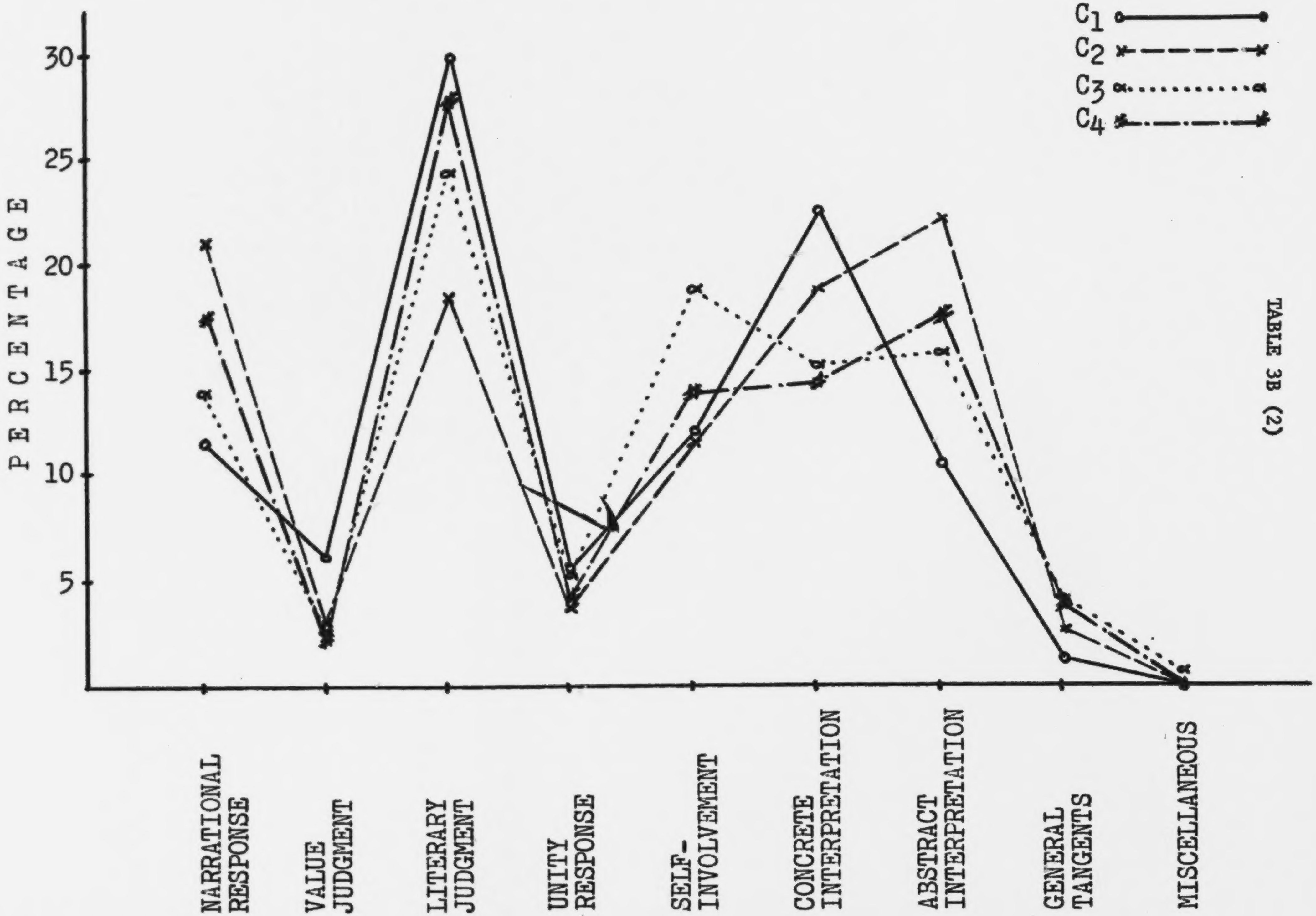
TABLE 3B (1)

	CURRICULUM 1		CURRICULUM 2		CURRICULUM 3		CURRICULUM 4	
	numb. of responses	percent of responses	numb. of responses	percent of responses	numb. of responses	percent of responses	numb. of responses	percent of responses
Narrational Response	24	11.5	44	21.3	30	13.8	30	17.4
Value Judgment	13	6.3	5	2.4	5	2.3	4	2.3
Literary Judgment	62	29.8	37	17.9	53	24.3	48	27.9
Unity Response	12	5.8	7	3.4	12	5.5	7	4.1
Self-Involvement	25	12.0	24	11.6	40	18.3	23	13.4
Concrete Interpretation	47	22.6	39	18.8	33	15.1	24	14.0
Abstract Interpretation	22	10.6	46	22.2	35	16.1	30	17.4
General Tangents	3	1.4	5	2.4	9	4.1	6	3.5
Miscellaneous	0	0.0	0	0.0	1	0.5	0	0.0
Totals:	208	100.0	207	100.0	218	100.0	172	100.0

TABLE 3B (2)

FREE RESPONSE TO LITERATURE: POETRY
Percentage of responses by categories



Chapter 4

CONCLUSIONS, RECOMMENDATIONS, AND FURTHER STEPS

The Florida State University Curriculum Study Center began with a number of assumptions concerning the nature of the subject matter of English and the nature of the relationships of students, teachers, and material to the learning process. The first of these was that learning can be structured so that the learner can progress toward some goal or goals. This concern for an orderly and planned progression is basic to instruction in both skills and concept formation.

Another assumption of the Center was that literature has within it a structure which when focused upon in certain ways will give the reader a sense of unity and fullness. This structure was thought to be four-fold: (1) themes, (2) modes, (3) form or genre, and (4) specific selection. Instruction in literature could reflect this structure, and as the student progressed through an English program he could experience increasingly complex literature revealing this structure.

A third assumption concerned the nature of language: that the study of the English language involved more than the learning of certain skills. In the view of the developers of the Florida State materials, language study should emphasize the study of the English language as content itself. Therefore, not only was study of grammar--traditional, structural, transformational--included in the three curricula, but other aspects of English linguistics as well--phonology, usage, semantics, dialects, and varieties of English.

Basic to increased effectiveness in oral and written composition is a study of rhetoric, the Center assumed. Within the curricula developed by the Center, both direct and indirect units of study were presented which were concerned with the ethics of the communication of ideas, with logical thinking, and with the elements of speaker, tone, attitude, and audience. Essentially two ways of presenting these units of study were incorporated into the three experimental curricula: (1) units which were autonomously constructed, largely separated from other units of study such as grammar, poetry, etc. (particularly true in Curriculum I; see Chapter 1; and, (2) units on rhetoric and composition which developed from student responses to their reading and discussion. At all times there was the recognition that the students were to build on previous instruction in skills and concept formation, focus their learning on skills and concepts emerging from a particular unit, and anticipate future learning and teaching in these areas.

With these assumptions in mind, sets of materials were developed so that the teacher would be armed with a full body of carefully structured subject matter. The instructions to the teachers were frequently given in the form of sample dialogues. The focus of the entire project tended to be on processes used by students in experiencing and learning aspects of the three elements of English--language, literature, and composition.

The three structural models (Tri-Component or Subject Matter Blocs, Thematic Literature-Centered, and Cognitive) used to organize the elements of language, literature and composition were intended to provide divergent approaches to teaching junior high school English. One of the more obvious conclusions which was anticipated from the very outset of the study was that the three approaches did not exhaust the possibilities for structuring the content of junior high English. Other models existed and might conceivably have been more valid. By virtue of its selection of structural models, the Florida State Center placed certain limitations on the scope of the research.

There is always the possibility that an inherent structure within English exists which cannot be defined by using such terms as "sequential," "cumulative," "developmental," and "incremental." If this is the case, the results of the Florida State study seem to imply that a broad structure of the discipline must still be defined, developed, and applied on an experimental basis to a body of content. Perhaps there is a new set of terms altogether, not yet clearly stated, which is not necessarily contingent upon conventional notions of sequence.

I. Conclusions

The analysis of variance of the data obtained from the objective test battery, the sentence combining test, and the controlled writing problems indicates that generally none of the four groups significantly dominated another (i.e., at the .01 level). Only two of the ten sources of data revealed significant differences between groups. In both cases, students in Curriculum I (Tri-Component) achieved significantly better than those in the control group. Even though the analysis of variance consistently failed to show significant differences between the four groups, another statistical measure, the concordance test, seemed to indicate that Curriculum I was superior to Curriculum IV. The weighted means of each curricular group on each test instrument showed Curriculum I to be consistently first among the four groups while Curriculum IV was consistently last. It is impossible to conclude from the results of the concordance test that Curriculum I was significantly more effective than either Curriculum II (Thematic Literature-Centered) or Curriculum III (Cognitive). By the same token, it is impossible to determine whether Curricula II and III were significantly more effective than Curriculum IV.

At least two relevant conclusions may be drawn from the information cited above. First, the results of the analysis of variance suggest the possibility that certain kinds of language proficiencies (_i.e._, those kinds measured by the Sentence Relationships Test and the Language Concepts Test) are most efficiently developed by students in a curriculum which places special emphasis on language systems and broad language concepts (_i.e._, semantics, lexicography, metaphor, etc.) which are presented as independent blocs of study. The integration of these blocs into a broad structural framework (of the type inherent in Curriculum II and Curriculum III) seems to curtail this kind of proficiency. Secondly, the results of the concordance test would seem to indicate that even though curricular effects did not generally differ significantly from test to test, Curriculum I students performed consistently better, and Curriculum IV students performed consistently worse; hence it is possible to conclude that some sort of structured approach to the English curriculum enhances success. Since the Curriculum IV or control groups represented many kinds of approaches, some rigidly and some loosely structured, it is perhaps possible to conclude that on the average a structured approach increases the probability of success. Again, this conclusion may not hold for specific schools and teachers, a fact which is reflected in another statistic derived from the analysis of variance (i.e., the F-ratios for the Schools factor).

The Schools factor represented to a large extent the inevitable teacher variable, and the results of the various tests mentioned earlier show this factor to be consistently very significant. One might have expected this phenomenon to have occurred, but it invites speculation. While the concordance test seemed to show the value of some sort of formally structured approach to the junior high school curriculum, the Schools factor in the analysis of variance would seem to indicate that differences between teachers played a critical role in the success or failure of the several programs tested in the study.

Much of the effort in the field of English in the last decade has been directed toward development of subject matter and the sequence in which it is to be presented. Curricula often have been devised independently of the teachers who are to teach it. There seems to be an assumption that if a curriculum is carefully prepared and teachers are given explicit directions on how to proceed, the outcomes for students will be largely similar regardless of the teacher. The results of the Florida State study suggest that a teacher-proof curriculum is an illusive quantity, perhaps unattainable. The period of curriculum development generated by the Basic Issues Conferences might well have run its course. It may be time to answer a new and more compelling question: What is an English teacher? How, in other words, does an English teacher's behavior contribute to the success of the students in his class?

A finding which seems to bear out this contention emerged from the analysis of variance of the data from the semantic differential. The semantic differential, an inventory measuring students' attitudes in the three experimental curricula toward the rigor and value of their English programs and individual assignments, failed to reveal significant differences. It seems that the content of the curricula, though structured differently, did not significantly effect popularity among the students. Once again, specific content and organization seemed negligible factors.

The conclusions above are not in any way to be regarded as slighting the importance of curriculum development, or of totally condemning the importance of structured approaches to the teaching of junior high school English. It would seem, however, that guidelines to be drawn must somehow consider patterns of teacher behavior, what kinds of attitudes teachers bring to the content and to the students. These considerations do not represent a throwback to the child-centered approach to teaching. They merely imply that an elaborately structured approach to teaching the content of English is not necessarily conducive to improving the performance of students. Some kind of balanced approach, one which stresses curriculum organization and teacher behavior, seems a more favorable alternative. It is not enough to say that the best teachers produce the best results regardless of their approach to the content. The observation made by Squire and Applebee in their study of high schools which educate outstanding students of English has relevance at the junior high level also:

> Without question the Study schools are characterized by the presence of outstanding teachers of English. Quality of the English staff was noted immediately by observers, and this quality is reflected in teacher preparation as well as teaching effectiveness. (4)

If the complete problem is not in curriculum organization and content and if teacher behavior is part of the whole problem of developing excellent programs in English, then it is obvious that we must study the teacher of English with the care and diligence we have studied the content of English during the past several years.

II--A Recommendations for Future Research

In determining sequence in each of the three curricula, the Center staff made a number of arbitrary decisions, just as most other curriculum developers have had to do. Research has done little so far to lay a basis for sequence in English, though the studies of language development of children and adolescents by such researchers as Ruth Strickland, Walter Loban, Kellogg Hunt, and Roy O'Donnell are of some help. Much further research needs to be done on patterns of language development and the nature of language behavior and response at various levels. For example, a longitudinal study, similar to that of Loban in language, needs to be made of the directions of growth in comprehension of literature and nature of responses to literature at different age levels.

The centrality of the teacher variable to the final outcomes of the Florida State study seems to indicate that efforts to devise and test elaborate structural models for organizing and teaching junior high school English should be augmented by research programs which might include:

(1) attempts to determine what actually is meant by style of teaching (as opposed to description of what is to be taught and how content might be best structured).

(2) attempts to discover correlations between teaching style and various learning styles. Which students, in other words, learn best from which teachers?

(3) attempts to discover what determines given styles of teaching in English. This suggests courses focused on a study of styles of teaching, in addition to those on the organization of the material to be taught. (Florida State and other universities have initiated such a course, depending heavily on the videotaping of

micro-teaching sessions and the videotaping of actual classroom instruction, with subsequent analysis of these tapes by the students themselves.)

It is clear from the Florida State study that future programs should focus on the teacher as well as the subject matter of English. We must begin to look more closely at the human being who transmits the content of English.

II--B Recommendations for the Teaching of English to Early Adolescents

Although the results of the Florida State study do no finely discriminate among the three experimental methods of organizing materials for teaching English to adolescents, they do suggest that the materials need to be organized in some fashion. This organization should take into account how students grow and develop, and it should reflect an understanding of the complex nature of English. The guidelines below represent a gleaning of the research results and subjective responses of teachers who participated in the three-year program.

Guideline 1: A junior high school English program should be governed by a structure which integrates or relates the elements of language, literature, and composition. The special nature of the structure is not critical. That there be a planned structure seems sufficient.

Guideline 2: The content of English in the junior high school programs must be broadly defined within the framework of language, literature, and composition. Language must be conceived of as more than a grammar. The medium of literature must be seen as more than the printed page. Composition must be seen as the analysis and creation of oral as well as written language.

Guideline 3: The structure and procedures of the English curriculum can be largely similar from school to school regardless of the differing nature of student populations, but careful selection of materials for specific groups of students is crucial. The student groups in the six schools participating in the Florida project differed from each other, ranging from a largely disadvantaged group to one representing a relatively favored social-economic community. Student responses to the curricula generally and to various activities and teaching procedures were largely uniform from school to school, but achievement, of course, consistently varied greatly.

Guideline 4: There should be extensive use of multi-media activities. The use of films, slides, records, tapes, and overhead projectuals seems to increase students' concept formation ability. In addition, student perception of form is to some extent better developed by using other media to complement the printed or spoken word.

Guideline 5: Because the study revealed the teacher variable to be consistently very significant, it seems plausible to recommend that the junior high school English teacher attempt to objectify his own behavior--to ascertain what attitudes he brings to the content of his discipline and to realize what strategies he uses to bring content and the student together in the classroom.

III. Further Steps

Four steps have been taken so far to follow up on the study: (1) continuing the use and testing of the materials in Florida schools; (2) initiating the use of selected materials in Texas schools under the auspices of PESO (Panhandle Educational Services Organization); (3) contracting with a publishing firm to produce a series of junior high texts and media supplements based on the guidelines developed by the Center; and (4) conferring with British educators on how innovations in English, particularly in oral languages, could aid the development of the junior high school English program.

Several of the schools directly involved in the project elected to continue using the materials developed by the Center staff. In some cases the materials were distributed to other schools in the county in which experimental programs had been in operation.

The PESO project adopted selected materials from the Florida State Study Center to use experimentally in junior high schools in the panhandle area of Northwest Texas. Mrs. Edith Smith, coordinator of English programs for the project, has reproduced and disseminated a sizable quantity of the materials. She eventually intends to develop an evaluation program similar to the one used in the Florida State study.

The Silver Burdett Company has contracted with members of the Center staff to revise selected materials for publication in a junior high school textbook series, emphasizing literature study, oral and written composition, and broad language concepts. The series will be supplemented extensively with a multi-media package, including overhead transparencies, records, slides, tapes, and films. Tentative date for publication is the fall of 1970.

Perhaps one of the most fruitful follow-up activities of the Florida State study was a series of discussions which took place between members of the Center staff and several British educational specialists in the teaching of English at Exeter University, Exeter, England, June 1-8, 1968.

Since the Anglo-American Conference at Dartmouth College in the summer of 1966, new lines of communication have been opened between American and British specialists in the teaching of English. Herbert J. Muller's The Uses of English (New York: Holt, Rinehart and Winston, Inc., 1967) and John Dixon's Growth Through English (Reading, England: NATE, 1967) are reports of the conference which Center staff members reviewed. Because of the joint interest in the future of English teaching evinced by both nationalities, it was proposed that a meeting between the Florida State Center and certain prominent British authorities might be particularly worthwhile. The conferences centered around a discussion of the curriculum program which had emerged from the Florida State study.

J. W. Patrick Creber, author of Sense and Sensitivity (London: University of London Press, 1965), hosted the meeting. Mr. Creber, Lecturer in

Education at Exeter University, arranged for periods of observation and discussion in which the Florida State staff was familiarized with current British curriculum practices, especially in oral language. The British were particularly intrigued and disturbed by the American concern for structuring content. The fact that the several curricular approaches in the Florida State project failed to produce significant differences in student behavior was an encouraging sign to the British educators who generally felt that efforts to develop sequential and cumulative curricula were not necessarily primary to the teaching of English. The fact that the teacher variable was of considerable significance in the study also brought reactions from the British contingent, who saw the behavior of the individual English teacher as a cardinal consideration.

NOTES

[1] Freedom and Discipline in English: Report of the Commission on English (New York: College Entrance Examination Board, 1965), p. 13.

[2] Roy C. O'Donnell, The Correlation of Awareness of Structural Relationships in English and Ability in Written Composition (Mount Olive, N. C.: Mount Olive College, 1963), p. 13.

[3] James R. Squire, The Responses of Adolescents While Reading Four Short Stories (Champaign, Ill.: National Council of Teachers of English, 1964), pp. 17-18.

[4] James R. Squire and Roger Applebee, A Study of English Programs in Selected High Schools Which Consistently Educate Outstanding Students in English (Urbana, Ill.: University of Illinois, 1966), p. 499.

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